



**TARIFF COMMISSION  
GOVERNMENT OF INDIA**

**REPORT ON THE  
BIENNIAL REVIEW OF  
THE SERICULTURE INDUSTRY**

सत्यमेव जयते

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## SECRETARY

DR. P. V. GUNISHASTRI



(i)

GOVERNMENT OF INDIA  
 (BHARAT SARKAR)  
 MINISTRY OF COMMERCE  
 (VANIJYA MANTRALAYA)

*New Delhi, the 14th November, 1973*

**RESOLUTION**

**Tariffs**

**No. 13(1)-Tar/73.**—The Tariff Commission has submitted its report on the Biennial Review of the Sericulture Industry as required in the Government's Resolution No. 11(1)-Tar/69, dated the 6th December, 1969. The Commission's recommendations and the Government's decisions thereon are given in the Table below:—

TABLE

S. No.	Recommendation of the Tariff Commission	Decision of the Government
1	2	3
1	The existing rate of protective duty on raw silk affords the requisite cushion to face any competition from imports. The rates of protective duty on other silk products are of a compensatory nature. Hence revision in the existing rates of protective duty on raw silk or silk products covered by I.C.T. Item Nos. 46(a), 46(b), 46(1), 47 and 48 is not necessary. These protective rates may remain in force for the rest of the period upto 31st December, 1974.	Accepted. Protective rates of duty on I.C.T. Item Nos. 46(a), 46(b), 46(1), 47 and 48 will continue to remain in force for the rest of the period of protection, <i>viz.</i> , upto the 31st December, 1974.
2	It is not desirable to reduce the protective duties on silk yarns and fabrics to the same level as that applicable to raw silk as it would disturb the <i>inter se</i> relationship in the import prices of these three products.	Accepted.

1	2	3
3 The recommendations made to the Government in the late Ministry of Foreign Trade, separately, on a reference made by them relating to the import of raw silk are reiterated. It is, however, hoped that with the production of improved quality of silk of international standard in the country, there may not be any need for such imports in the foreseeable future.		Noted.
[On a reference made by the late Ministry of Foreign Trade separately, the Tariff Commission had recommended as follows :—		The recommendation made by the Tariff Commission on the scope & method of imports and calculation of import entitlement of raw silk are under active consideration of the Government, in the Ministry of Industrial Development and will be implemented to the extent possible.
The present policy of canalisation of all imports of rawsilk through the Central Silk Board has had a salutary effect on speculative conditions within the country, and should be continued;		
To meet the demand of actual users requiring high grade silk and of manufacturers of export products, a portion of the imported raw silk should be allowed to be used by the Central Silk Board for allotment to these categories of users, direct. This will bring about a moderating influence on the domestic silk market;		
Exporters might be granted complete draw-back on the quantity of imported silk actually used in the production of mulberry filament silk fabrics, Charkha silk fabrics and cottage basins silk fabrics exported, which may be taken at 25 per cent of the weight of the fabrics exported, as certified by the Central Silk Board;		

The replenishment quota of imported filature silk to the exporter, which should constitute three-fourth of the imports, may also be fixed on the same basis as indicated above.]

4 It is not necessary or even desirable to allow import of spun silk yarn or to reduce the import duty on such yarn. *ibid.*

5 In West Bengal, which is the second largest mulberry silk producing State in the country, the area under mulberry cultivation has been coming down year after year, which cannot be explained away by floods in that State in 1971. There is urgent need to redouble efforts not only to arrest the declining trend but also to recover the lost area under mulberry cultivation in that State. Noted. Attention of the industry, the Central Silk Board and the State Government of West Bengal is also drawn to this recommendation or appropriate action.

6 All out efforts should be made to expedite irrigation facilities, wherever possible, to the existing areas which are at present under rainfed conditions by enlisting the support of the banking institutions. Since Governmental efforts alone cannot provide irrigation to the entire area under rainfed conditions, the present loan-cum-subsidy of Rs. 5000/- per well may be suitably raised so as to enable the Sericulturist to evince keener interest to provide irrigation to his mulberry gardens. Noted. Attention of the State Governments, Central Silk Board and other authorities concerned is also drawn to this recommendation for appropriate action.

7 The absence of suitable legislation prohibiting the use of untested layings in the State of West Bengal has led to the use of such layings to the extent of over one-third of the total layings in that State. Untested and diseased Noted. Attention of the West Bengal Government is also drawn to this recommendation.

layings are liable to infect other healthy layings. It would, therefore, be desirable for the State Government of West Bengal to enact early legislation to ensure that the seed producing grainages are licensed and adequately equipped for testing layings.

8 In the State of Jammu and Kashmir the ratio of cocoons used per kg. of raw silk has been deteriorating year after year, since 1966. Immediate steps should be taken to arrest this trend.

Noted.  
Attention of the State Government of Jammu and Kashmir and J. & K. Industries Corporation Limited is also drawn to this recommendation.

9 The present practice of marketing of raw silk is primitive and far from organised. It leaves room for exploitation of small reelers and for price fluctuation affecting the silk weavers, and other mal-practices. Arrangements should, therefore, be made for silk testing and conditioning before sale and also for release of raw silk at regulated intervals and at regulated prices based on quality. The proposed Raw Material Bank if and when set up, can play a useful role in these respects.

Noted.  
The Central Silk Board's proposal regarding the setting up of the Raw Material Bank for disciplining the market conditions for mulberry filature raw-silk etc. cover these proposals as well and are receiving the attention of the Government in the Ministry of Industrial Development.

[The proposal for the setting up of a Raw Material Bank for the Sericulture products which is under the consideration of the Government in the Ministry of Industrial Development, has the object of centralising procurement and supplies of essential raw materials to manufacturers/exporters, stabilisation of the markets in these products, and allowing remunerative prices to primary producers, and other ancillary matters.]

10 There is no scientific method of testing cocoons. The quality is determined by the application of empirical methods derived from past experience in cocoon trade and reeling industry. In the circumstances, there may be an unhealthy competition amongst various bidders without ensuring that the primary producer gets a fair price commensurate with the quality of cocoons produced by him. It is, therefore, desirable that some attempt towards classification of cocoons be made for payment on the basis of quality determined by such classification, so that there would be an incentive for the rearers to raise better cocoons.

11 The bulk of filature raw silk produced at present in the country does not lend itself for gradation according to the existing I. S. I. standards on account of inherent low neatness standards. Indian Standards Institution may, therefore, examine the possibility of suitably modifying the standard specifications.

Noted.

The Central Silk Board's proposals regarding setting up of the Raw Material Bank for disciplining the market conditions for mulberry filature raw silk etc. cover these proposals as well and are receiving the attention of the Government in the Ministry of Industrial Development. The attention of the Indian Standard Institution is also drawn to this recommendation.

12 The Tariff Commission has been advised that despite achievements of satisfactory results in the field of research, there exists a wide gap in the application of the research results to

Noted.

Attention of the Central Silk Board Research Stations attached to the

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the field due to non-existance of Extension Wings, for undertaking field trials and other propagation work. The Commission had recommended such extension Wings in its (1969) Report. It would again lay stress on this recommendation. Such Extension Wings should be set up at each Research Station, expeditiously. In this connection the Commission emphasise the fact that the future of the Indian Sericulture industry lies not only on the extent to which research is carried out but also on the extent to which the results of such research are applied in actual practice on as wide a range as possible.

Board, and the industry is also drawn to this recommendation.

13 The Central Silk Board claims that despite the extremely satisfactory results obtained in the field of research the result could not be implemented on a field scale due to paucity of funds for providing irrigation, setting up Extension Wings to research stations and building up the necessary incubation and chawkie rearing centres. As a result there has been little or no improvement in the production of cocoons. Government may examine the financial needs of the Central Silk Board and provide such further assistance as may be found to be really necessary.

14 In a recent study of the export markets, the 4-Member Indian Silk Delegation, which visited U.S.A., West Europe, Japan and Hong Kong, in 1971, has observed that while there was tremendous possibilities for stepping up exports of silk fabrics, following factors were responsible for the steep fall in exports in recent years:—

(a) Non-compliance with the changing fashion trends;

Noted.

Noted.

Attention of the Central Silk Board and the Industry is also drawn to this recommendation.

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- (b) Dumping of material-scarves and stoles - during boom period;
- (c) Deterioration in quality;
- (d) Influx of too many exporters into the market with the resultant *inter-se* competition which brought down the prices and also the quality standards;
- (e) Fluctuation in prices and high costs particularly in the case of tasar fabrics;
- (f) Inadequacy of publicity efforts;
- (g) Failure on the part of some of the exporters to conform to the business ethics particularly in the field of quality with reference to the accepted sample, delivery schedule, prices etc.

The above observations of the delegation for the steep fall in exports are matters for serious concern and the Government will no doubt look into them.

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### ORDER

Ordered that the Resolution be published in the Gazette of India and a copy thereof communicated to all concerned.

(B. D. KUMAR)

*Joint Secretary to the Government of India.*

## **REPORT ON THE BIENNIAL REVIEW OF THE SERICULTURE INDUSTRY**

**1.1.** In recommending continuance of protection to the Sericulture Industry for a further period of five year's at the time of our last inquiry in 1969, suggested that intensive efforts should, in the meantime, be made to improve the production and quality of mulberry leaves and cocoons and that evaluation of this progress should continue to be made at biennial intervals. The Government of India in the Ministry of Foreign Trade Resolution (Tariffs) No. 11(1)-Tar/69, dated the 6th December, 1969 accepted our above recommendation in pursuance of which we have undertaken this Review.

**1.2.** The scope of the Review should in the ordinary course, cover only the evaluation of the progress made in regard to the improvement in the production and quality of mulberry leaves and cocoons. But the Government of India had, in the meanwhile, asked for our views/comments on certain matters relating to the adoption of a single uniform rate of duty, on par with that of raw silk, on all the other protected items of sericulture, reduction in the rate of duty on raw silk and imports of a limited quantity of raw silk for distribution to the silk weaving and Zari Industries. While giving our views/comments on those matters we had, however, informed the Government that they would be further considered in detail at the time of this Review. Further, an exporter in Bombay had also represented to us to consider the question of allowing imports of spun silk yarn with a reduced rate of duty. We have, therefore, decided to enlarge the scope of this Review to cover all aspects of the Sericulture Industry including the measure of protection.

**2. Method of Review** Questionnaires were issued to mulberry cultivators, graineurs, rearers of silk worms, producers of raw silk and spun silk mills eliciting information on the progress made since 1969 in their respective fields. The Governments of the sericul-

tural States of Assam, Bihar, Jammu & Kashmir, Tamil Nadu, Meghalaya, Mysore, Madhya Pradesh, Orissa, Uttar Pradesh and West Bengal were addressed for information on various aspects covering the Review. The Central Silk Board was requested to send a Memorandum on the progress made by the Industry since 1969 with particular reference to the various developmental recommendations made in our last Report. Letters were also issued to the Sericulture Research Institutes, All India Handloom Board and the Khadi and Village Industries Commission for information pertaining to their specific activities.

Stressing that tariff protection alone would not lead to improvement of standards and performance, we had also observed in para 19.6 of our last Report that

**3. Ancillary recommendations made in the Commission's last Report (1969)** Government and institutional assistance was abundantly needed for the purpose and with this in view made a number of ancillary recommendations covering all the aspects of the Sericulture Industry including import and export policies governing the sericultural products. These recommendations along with Government's decisions thereon, as announced in the Ministry of Foreign Trade Resolution No. 11(1)-Tar/69, dated the 6th December, 1969 are set out below. The extent to which they have been implemented is dealt with under the appropriate paragraphs.

## I. MORICULTURE

### *Recommendations*

(i) "The attention of the Central Silk Board as well as of the concerned State Governments is drawn to the alarming development in the increase in the cost of production of mulberry leaves and it is recommended that ways and means may be explored to bring down the cost of leaves."

(ii) "Since the District of Dehra Dun in Uttar Pradesh is heavily forested, it would be desirable to undertake mulberry plantation in the forest areas where rearing operations can be conducted in order to provide plentiful supply of leaves to rearers. A planned silvicultural project for mulberry plan-

tation is bound to yield good results and thereby increase the production of mulberry silk manifold.”

(iii) “The Indian Sericulture Industry has to improve its performance six-fold in order to reach Japanese standards. As a first step, irrigation facilities need to be introduced for all mulberry cultivations. Attention may also be given to the nutritive contents of mulberry leaves to ensure healthy growth of worms and reduction in wastage by mortality.”

#### *Government's decision*

Government took note of these recommendations and invited the attention of the concerned State Governments. The attention of the Industry was particularly drawn to Recommendation (iii).

## II. SEED PRODUCTION

#### *Recommendations*

(i) “As the main reason for the reduction in the number of layings used in Jammu & Kashmir is said to be the general decline of sericulture in that State, urgent attention should be devoted to the solution of the problem of the Sericulture Industry in that State.”

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(ii) “It is strongly recommended that the basic principle, that all layings must be tested, should be implemented and that the State Government of West Bengal may also enact suitable legislation to ensure that the seed production grainages are licensed and adequately equipped for testing layings.”

#### *Government's decision*

Government took note of these recommendations.

## III. REELING OF SILK

#### *Recommendations*

(i) “Agreeing with the conclusions of the Filature Committee, it has been strongly recommended that

the problem of improving the quality of reeling cocoons should be tackled at the basic level of production of mulberry leaves and cocoons".

(ii) "Reiterating the recommendations made in the 1966 Report, a note of warning is sounded that unless effective steps are taken to rejuvenate the industry in Jammu & Kashmir, the industry may disappear from this State in the next ten years."

#### *Government's decision*

Government took note of these recommendations.

### IV. QUALITY OF RAW SILK

#### *Recommendations*

(i) "The quality of raw silk, instead of improving, appears to have deteriorated since the 1966 inquiry. It is difficult to understand why steps were not taken to equip properly the testing houses, particularly when large sums are available for the purpose to research institutions and the Central Silk Board. It is hoped that this serious shortcoming will be removed urgently so that testing may be rendered scientifically correct and acceptable."

(ii) "It has been recommended that the filatures may join the I.S.I. Certification Marking Scheme."

#### *Government's decision*

Government took note of the Recommendation (i) and stated that the Central Silk Board would look into it further with a view to taking appropriate action.

As regards (ii) Government was of the view that owing to the lack of adequate arrangements of grading and testing of silk, it was considered premature for filatures to join the I.S.I. Certification Marking Scheme. This may be feasible later when adequate arrangements for testing and grading are made.

## V. SILK WASTE

### *Recommendation*

“As spun silk yarn has substantial export potential, it is advantageous to convert internally all the available silk waste and then export it. The existing export policy may be reviewed and further augmentation of installed spinning capacity considered, if this becomes necessary for the purpose.”

### *Government's decision*

Government while agreeing that it was to the national advantage to export silk yarn rather than silk waste, however, observed that the present spinning capacity including the capacity licensed appeared to be adequate for this purpose.

## VI. IMPORTS AND EXPORTS

### *Recommendations*

(i) “If at any stage imported raw silk is needed to be used for re-export after fabrication, full drawback of duty may be allowed. Concessional rates of duty on the plea that such silk is needed for export or for substitution of exported textiles would, however, not be justified.”

(ii) “With the increase in the production of synthetic fibres, it would be desirable to discourage internal consumption of silk and develop exports to the largest possible extent. Internal use of substitutes may be encouraged to the extent necessary.”

(iii) “Since prices of imported silk have a great impact on the domestic market, it is suggested that imports and distribution of imported raw silk should be canalised through the State Trading Corporation or the Central Silk Board, in order to avoid sudden fluctuations in the domestic prices.”

### *Government's decision*

Government took note of Recommendation (i) and stated that suitable steps would be taken to implement it to the extent possible.

As regards (ii), Government stated that there was no indication that internal consumption was standing in the way of the export of silk fabrics and added that the question of taking steps to discourage the internal consumption of silk fabrics would be considered, if and when a situation arises where internal consumption was found to be hampering exports.

Regarding (iii), Government accepted the need to minimise fluctuations in the domestic prices of raw silk, in the interests of export promotion, besides the need for consolidating the internal demand. They had accordingly accepted the recommendation of the Commission for canalising the import of raw silk.

#### 4.1. Position of the Industry in 1969

At the time of our last inquiry in 1969, the industry had to improve its performance six-fold in terms of cost of mulberry leaves and rearing efficiency in order

**4. Progress of the Industry since the Commission's last Report (1969)** to reach the Japanese standard. The economy of mulberry leaf production as well as cocoon production in India was still attuned to the cottage level of production.

Besides, 90 per cent of Indian raw silk was reeled on primitive charka and, therefore, did not measure up to the international specifications determined by the International Silk Association. Even the filature silk was inferior in quality mainly due to the poor quality of cocoons which constituted about 70 per cent of the total cost of raw silk production. The Industry was thus confronted with the basic problem of prohibitive cost of production, reduction in which could be achieved only by adopting intensive methods of production technology. The imperative need was, therefore, of undertaking mulberry leaf production on scientific lines, improvement of renditta by hybridising better strains of cocoons and reduction of losses on account of mortality. We had accordingly recommended in para 8.6.11 of our last Report that as a first step irrigational facilities were needed to be introduced for all mulberry cultivation and that almost equal, if not more, attention was needed to be given to the nutritive content of mulberry leaves to ensure healthy growth of worms and reduction in wastage by mortality. We, therefore, propose to review in this Chapter the efforts made to implement

these recommendations with particular reference to the following aspects governing the cost of production and quality of raw silk :

- (i) Provision of irrigation to mulberry cultivation;
- (ii) Introduction of high yielding species of mulberry and other agronomical methods for increasing the mulberry yield;
- (iii) Evolution of good Silkworm/races;
- (iv) Introduction of improved rearing techniques; and
- (v) Supply and performance of Disease Free Layings.

#### **4.2. Provision of irrigation to mulberry cultivation**

4.2.1. Cocoon production and reeling of silk would be an ancillary cottage industry to agriculture provided mulberry cultivation and silkworm rearing are profitable enough, compared to the other cash crops. We had recommended in paragraph 8.6.11 of our 1969 Report that irrigational facilities be introduced for all mulberry cultivation and that attention be given to the nutritive content of mulberry leaves to ensure healthy growth of worms and reduction in wastage by mortality. The Central Silk Board and the State Governments who replied to our questionnaire in connection with the present Review have informed us that they have been paying attention to the provision of irrigation and inputs with superior strains of mulberry. Particulars of Development Schemes during 1969-70 to 1972-73 are given in Appendix I. In addition to the schemes proposed in the Annual Plans, States like Mysore are stated to have drafted 10 year programmes for intensive development of the Industry. The salient features of these plans are to provide irrigational facilities and to apply suitable doses of fertilisers as recommended by the Research Institutes. The farmers were offered financial assistance in the shape of grant of loans and subsidy for sinking wells. The State Governments, as stated by the Central Silk Board, had sanctioned sinking of 818 wells involving an outlay of Rs. 7.5 lakhs in 1970-71.

4.2.2. The country's total area under irrigation and rainfed conditions from 1968 to 1971 are given in the following table. State-wise details are given in Appendix II.

TABLE 1  
*Area under Mulberry cultivation*

(In      hectares)

As at the end of the year	Under Irrigation	Under Rainfed conditions	Total
1968	16,962	76,322	93,283
1969	15,080	76,219	91,299
1970	18,182	79,521	97,703
1971	22,922	82,023	104,945

The area under irrigation has increased by 35.1 per cent in 1971 as compared to that in 1968 as against an increase of 7.5 per cent in the area under rainfed conditions during the same period. The position in each of the important mulberry silk producing States is given below.

4.2.3. In Mysore State which contributes over 80 per cent of the country's mulberry raw silk, the area under irrigation has increased from 16,300 hectares in 1968 to 21,612 hectares in 1971 (32.6 per cent) while the rainfed area has gone up from 67,500 hectares to 72,737 hectares (7.8 per cent) during the same period. On the basis that each well can, on an average, irrigate 2 hectares and that the total investment on each well including water lifting device is Rs. 7000/- to Rs. 7300/- as informed by the Central Silk Board, the States' area under rainfed conditions require 36,368 tube wells, costing around Rs. 26 crores. The State Government has informed us that it has prepared a Crash Programme to increase the production of silk in the State at a cost of Rs. 102.25 crores spread over a period of ten years. Its main features are to provide irrigation to all mulberry cultivation. It proposes to sink 4000 tube wells during the Fourth Plan. It has, however, informed us that since over 80 per cent of mulberry

cultivation in the State is at present under rainfed conditions, Governmental efforts alone cannot bring in the maximum area under irrigation and that private sericulturists should also evince keen interest and tap their resources.

4.2.4. In West Bengal which is the second largest mulberry silk producing State accounting for about 14 per cent of the country's production, the area under irrigation which declined from 85 hectares in 1968 to as low as 47 hectares in 1969, however, increased to as high as 209 hectares in 1970, though it declined slightly to 195 hectares in 1971. Its area under rainfed conditions which increased initially from 5482 hectares in 1968 to 5755 hectares in 1969, on the other hand, declined to 5664 hectares in 1970 and further to 5185 hectares in 1971. We had pointed out in our last Report (para 8.6.2) that the area under mulberry cultivation in West Bengal which had 6494 hectares in 1965 had come down to 5566 hectares in 1968 and that drought and inadequate returns on cocoons was said to be responsible for this reduction, and observed that redoubled efforts were needed for a rapid recovery of the Industry in that State. The State Government has not, however, indicated the efforts made or being made for the rapid recovery of the industry in the State. The decline year after year in the total area under mulberry in that State cannot be explained away by floods in that State in 1971. Though it is true that there has been an improvement in the area under irrigation, the overall position would appear to indicate that sufficient efforts have not been put in for the recovery of the Industry as suggested by us. *We would, therefore, reiterate our earlier recommendation with the emphasis on the urgent need to redouble efforts not only to arrest the declining trend but also to recover the lost area under mulberry cultivation in the State.*

4.2.5. Jammu and Kashmir is the third important mulberry silk producing State accounting for about 2 per cent of the total production. In this State mulberry is cultivated in the form of tall trees planted on meadows, roadsides, canal and river banks, field borders etc.

4.2.6. In Uttar Pradesh also the entire supply of mulberry leaf for industrial rearing is from trees scattered on

borders of the fields, road-sides, etc. covering an area of about 100 hectares. It is neither necessary nor possible to provide irrigation to the trees in this area since the crops raised in the State are preceded by rains—the spring crop by winter rains in December/January and the autumn crop by monsoon rains in July/August. The Government farms and nurseries are, however, provided with irrigation, the area of which increased from 109 hectares in 1968 to 187 hectares in 1969 and further to 195 hectares in 1970 but declined to 145 hectares in 1971.

4.2.7. In Tamil Nadu the area under irrigation has increased from 83 hectares in 1968 to as high as 300 hectares in 1971. The area under rainfed condition also increased from 1689 hectares to 2596 hectares during the same period. The State Government has informed us that in order to bring more of mulberry under irrigation a scheme to issue loans and subsidy for sinking wells has been in operation since 1969-70 and that so far 21 wells have been dug by private parties.

4.2.8. In Andhra Pradesh the area under both irrigation as well as rainfed increased respectively from 377 hectares to 462 hectares and from 98 hectares to 182 hectares during 1968-71. We are informed by the State Government that sericulturists are being offered loans for digging new wells and deepening or widening the old ones.

4.2.9. In Madhya Pradesh where the entire mulberry cultivation is under rainfed conditions, there is a progressive decline in the area from 300 hectares in 1968 to 100 hectares in 1971. The State Government has informed us that as the State consists predominantly of tribals who do not own much land it proposes to bring about 800 hectares of uncultivated Government land under Block Plantation and to lease out only the leaves to the landless and marginal land holders for silkworm rearing.

4.2.10. In Assam the entire area under mulberry is under rainfed conditions. The State Government has informed us that since mulberry plants are grown near the rearers' home-steads and in small areas it is not possible to provide irrigation to those areas and that it has, however, started collec-

tive mulberry gardens covering 10 to 30 acres of land in important mulberry growing areas where sprinkler irrigation is being taken up as an experimental measure. Due to the formation of the separate State of Meghalaya the area under Mulberry is stated to have declined from 970 hectares in 1968 to 600 hectares in 1970 and remained at that level in 1971. But according to figures furnished by the Government of Meghalaya the area under mulberry in that State was 50 hectares only in 1970 which increased slightly to 60 hectares in 1971.

4.2.11. It is evident from the foregoing paragraphs that notwithstanding the fact that most of the States have schemes for providing irrigational facilities and offering financial assistance to the farmers in the shape of grant of loans and subsidy for sinking wells, not much headway has been made in reducing the area under rainfed conditions which has, on the other hand, increased in almost all the States. The Central Silk Board has, however, informed us that the implementation of the schemes sanctioned by the State Governments was being delayed due to procedural difficulties and the time lag between the date of approval of the schemes by the Board and the actual sanction conveyed by the State Governments to the Departments concerned and also due to the fact that while the total investment on each well is about Rs. 7000/- to Rs. 7300/-, the grant of loan-cum-subsidy is limited to the maximum amount of only Rs. 5000/- per well. The outlay involved being sufficiently large, action has reportedly been initiated to enlist the support of the nationalised banks to advance loans and to seek suitable subsidy on 50:50 basis from the Central and the State Governments. We understand that in Mysore the scheme to encourage digging of wells by sericulturists by offering them loans is already entrusted to the Land Development Bank to ensure that adequate financial resources are available for this gigantic work. According to the Statistical Sample Survey carried out in Mysore in 1967-68, the estimates of mulberry leaf yield in rainfed gardens was 3,279 kgs. per hectare per annum for 6 pickings while in the case of irrigated gardens it was 16,962 kgs. for 5 pickings, and that even at the high leaf to cocoon ratio of 20:1, the production of cocoons could be increased four or five-fold with the provision of irrigational facilities.

While appreciating the work already initiated, we recommend that all out efforts be made to expedite irrigational facilities wherever possible, to the existing areas which are at present rainfed by enlisting the support of the banking institutions. We are in agreement with the views of Government of Mysore that Governmental efforts alone cannot provide irrigation to the entire area under rainfed conditions and recommend that the present loan-cum-subsidy of Rs. 5000/- per well may be suitably raised so as to enable the sericulturist to evince keener interest to provide irrigation to his mulberry gardens.

#### 4.3. Introduction of high yielding species of mulberry and other agronomical methods for increasing the mulberry yield

4.3.1. The species of silk worms reared in our country are said to be partly responsible for the high cost of production of silk. In addition, the traditional methods of raising bush variety of mulberry are also uneconomical. It was observed during the 1969 inquiry that between 1964 and 1968 the cost of production of mulberry leaf had increased by 117%. Since the increase of such magnitude would have a very severe impact on the price of cocoons, we had drawn the attention of the Central Silk Board as well as State Governments to it and recommended that ways and means should be explored to bring down the cost. We had also suggested that besides irrigational facilities, high yielding varieties of mulberry be introduced so as to reduce the cost of cultivation. We are informed that attempts are already underway to popularise improved strains of mulberry and that the Central Sericultural Research and Training Institute, Mysore has evolved, for adoption, an improved strain called "kanwa-2" which is stated to give more than 20 per cent increase of leaves over the existing ones, while certain other improved varieties which increase the present leaf yield by 50 to 80 per cent are under final selection at the Central Sericultural Research Station, Berhampore. We are also informed that investigations carried out by these two Institutes have conclusively proved that through manurial combination and other agronomical practices also, the existing leaf yield from the same plant could be increased by 60 to 70 per cent under

both rainfed and irrigated conditions. It is stated that according to the findings of the Central Sericultural Research and Training Institute, Mysore application of 50 kgs. of nitrogen per hectare in rainfed gardens and 200 to 250 kgs. per hectare in irrigated gardens could bring about a two-fold increase in the yield of leaves. Similarly, suitable NPK combinations evolved by the Central Sericultural Research Station, Berhampore are stated to be capable of producing 26,000 kgs. of leaf per hectare as against 14,413 kgs. at present. The results achieved by these Research Institutes are claimed to be of a high order comparable to those of Japan.

4.3.2. The leaf yield and cost of production in different States at the time of our last inquiry in 1968 and in 1971 are given in the following Table. These figures would reveal to what extent increase in yield and reduction in cost of leaves have been achieved during the period in the light of what has been stated in the foregoing paragraphs.

TABLE 2  
*Yield and Cost of Production of Mulberry leaves*

Name of the State	Year	Average annual yield of mulberry leaves per hectare (Kgs.)		Cost of production of leaves per Kg. in Rs.	
		Rainfed	Irrigation	Rainfed	Irrigation
1. Mysore . .	1968	3000	10000	0.25	0.33
	1971	4500	10000	0.30	0.30
2. Tamil Nadu . .	1968	3250	5248	0.17	0.20
	1971	3700	5800	0.23	0.30
3. Uttar Pradesh . .	1968	..	7000	..	0.31
	1971	..	10000	..	0.20
4. Madhya Pradesh . .	1968	3700	..	0.15	..
	1971	11000	..	0.16	..
5. Manipur . .	1968	2700	..	0.12	..
	1971	2000	..	0.20	..
6. Assam . .	1968	10000	..	0.14	..
	1971	12000	..	0.15	..
7. Maharashtra . .	1968	2428	..	0.20	..
	1971	3680	..	0.20	..
8. West Bengal . .	1968	15500	17000	0.17	0.19
	1971	29000	29500	0.12	N.F.

4.3.3. The yield of mulberry cultivated under rainfed areas increased in 1971 as compared to that in 1968 in all the States except in Manipur where it declined by 26 per cent. In the case of irrigated area also there was increase in all States except in Mysore where it remained unchanged. The increase of yield in rainfed area was highest in Madhya Pradesh (200%) followed by West Bengal (90%), Mysore (50%), Maharashtra (50%), Assam (20%) and Tamil Nadu (10%). As regards the yield in irrigated area was 70% in West Bengal, 40% in Uttar Pradesh and 10.5% in Tamil Nadu. These increases in yield have not resulted in any reduction in the cost of production of leaves which has also increased in all the States except West Bengal in respect of the rainfed area and Mysore and Uttar Pradesh in respect of the irrigated area. The increase in cost is the highest in Manipur (66%) followed by Tamil Nadu (50% in irrigated area and 35% in rainfed area), Mysore (20% in rainfed area) but is marginal in Madhya Pradesh and Assam (7% each). Mulberry leaf is provided free of cost to the rearers in Jammu and Kashmir where sericultural activities are the monopoly of the State Government and cost of production thereof is not available.

4.3.4. Taking all the States together, the cost of production ranged between 12 paise per kg. in West Bengal to 30 paise per kg. in Mysore in respect of rainfed areas and between 20 paise per kg. in Uttar Pradesh to 30 paise per kg. in Mysore in respect of irrigated area. It thus continues to be a matter of not only surprise but also of considerable concern that Mysore which is the major silk producing State in the country continues to register the highest cost. The State Government has, however, informed us that when the new variety of mulberry (namely, Mysore selected 5, a good yielder) is introduced on a large scale, the cost production of leaves would ultimately come down. Some of the other State Governments have stated that though attempts are being made to increase the yield of leaves and reduce the cost of production by providing irrigation facilities, by encouraging the usage of chemical and other manure and by advocating the adoption of high yielding and incidentally low costing varieties of mulberry as per the suggestions of the Research Institutes, it would take some more years to get the desired results since all these measures aimed at reducing the cost

have been taken up only recently. Both the Central Sericultural Research and Training Institute, Mysore and the Central Sericultural Research Station, Berhampore have stated that despite the achievements of extremely satisfactory results in the field of research which compared favourably with those of Japan there exists a wide gap presently in the application of the research results to the field due to the non-existence of extension wings. We had recommended in para 11 of our last Report that it would be useful to attach a small Extension Wing to each Research Station for undertaking field trials and other propagation work. The Central Silk Board has now informed us that in view of its present tight budgetary position it has not been able to set up full fledged extension wings and undertake more effective steps to further the interests of the Industry. Therefore with a view to building up its own resources, a Committee was constituted to go into the question of suggesting ways and means of raising sufficient finances. Its major recommendation to amend Section 10 of the present Central Silk Board Act is stated to have been referred to the Government for consideration. The Board is confident of a breakthrough by setting up suitable extension wings to the research institutions in the coming years when its budgetary position improves. *We would again lay stress on our recommendation made in the last Report that Extension Wings should be expeditiously set up at each Research Station.*

#### 4.4. Evolution of Good Silkworm Races

4.4.1. The Commercial potentialities of the existing indigenous silkworm races are stated to be absolutely limited as compared to those in advanced sericultural countries like Japan due to their low shell percentage and heavy flossiness and are also beyond further improvement. The future of the Indian Sericulture Industry, therefore, lies in evolving suitable hybrids which would give not only a stable cocoon crop but also record an improvement in quality. The Central Silk Board has informed us that considerable work has been done in this direction by the Research Stations at Mysore, Berhampore and Ranchi and also at the Central Silk Worm Station, Pampore (Kashmir) and very encouraging results have already been obtained which are presently under field application studies. The Central Sericulture Research and Train-

ing Institute, Mysore has claimed that as a result of large scale genetical and breeding experiments, a good number of new multivoltine improved silkworm races, ideally suited to Mysore conditions, have been evolved which in hybrid combinations with suitable partners give 20 to 25 per cent better performance in regard to cocoon yields as compared to the conventional hybrids in the State at present. Besides increased cocoon yields, these races also produce high quality cocoons with much higher silk content, capable of giving a renditta of 10-12 as against 16-18 at present. According to this Institute, the introduction of these new multivoltine race combinations would bring about a substantial increase in the productivity. It is also understood that in Mysore where at present multivoltine bivoltine races are reared, a package deal research project was recently conducted, under the aegis of this Institute on the possibilities of rearing bivoltine races and their hybrids. The results of experiments are stated to have clearly established that bivoltines could be successfully reared under Mysore's climatic conditions. An average yield of 45-48 kgs. of cocoons per 100 disease free layings was reported to have been achieved. The renditta of these bivoltine hybrids is stated to be eight to nine as compared to 16 to 18 of normal multivoltine hybrids. The Central Sericultural Research Station, Berhampore has also informed us that trials with four superior multivoltine races evolved in that Research Station have been found to outyield the local breed by about 10 to 15 per cent.

4.4.2. The various raw silk producing States also are stated to have taken suitable steps for rejuvenation of races or evolution of new breeds so as to improve the production and quality of cocoons. In Mysore, triple crosses and polyhybrids of Japanese and Chinese origin are stated to have been introduced on a large scale. In Jammu and Kashmir, nine new breeds which are commercially pure and yield very good cocoons in bulk have been evolved, of which three have been released by the Central Silk Board for introduction in the whole of India. In U.P., a seed organisation for the production of healthy seed has been established and polyhybrids are issued for industrial rearing. The rearing performance of four pure races supplied by the Central Silk Board is also under study. In Madras, the newly started Research and

Extension Wing at Coonoor is stated to have picked up certain bivoltine promising races which are being reared continuously in plains for rejuvenation at the hills. In Madhya Pradesh, a seed station has been established in the hill station of Pachmarhi to help the rejuvenation of races. In Manipur, some improved races of mulberry silk worm have been requisitioned from Assam, West Bengal, Kashmir and Mysore to improve the production and quality of cocoons. In Assam, where adequate supply of univoltine hybrid seeds is stated to have posed a problem since the formation of a separate State of Meghalaya all possible steps are being taken for the production and distribution of good combinations.

4.4.3. In the Tasar Sector also, an extremely fruitful line of approach is stated to have been adopted to improve the productivity. A detailed survey of the sub-Himalayan region made by the Central Tasar Research Station, Ranchi to find out the scope for the rearing of oak feeding tasar silkworms has shown the existence of enormous potential, and a scheme is now initiated to set up breeding centres at Imphal (Manipur) Ranikhet (Uttar Pradesh) and Batote (Jammu). "A. pernyi" seed obtained from Japan is presently being multiplied in these centres. Evolution of new races from the interspecific hybrid by different breeding methods is also in progress.

#### **4.5. Introduction of Improved Rearing Techniques**

4.5.1. Proper maintenance of temperature and humidity during different stages of rearing is a very basic need for having successful silkworm crops. Proper rooms and spacing are also necessary to achieve the most desirable results. But sericulture being a subsidiary occupation is practised mostly in the open and in the sericulturists' own houses which are neither equipped nor hygenic for ideal rearing. To minimise the duplication of labour and to avoid the shortage of space, in many other countries the first to third stage worms are being reared collectively under ideal conditions with proper type of temperature.

4.5.2. The Central Silk Board has stated that attempts are being made in India too to centralise the collective

chawkie rearing under ideal conditions and provide more nutritious leaf to the adult worms so that they become strong to withstand the changes in the normal atmospheric conditions. The Board has, however, conceded that at present there are only 100 chawkie rearing centres in Mysore, 42 in Uttar Pradesh, two in Andhra Pradesh, one each in Assam, Tamil Nadu and West Bengal and 366 incubation centres in Jammu and Kashmir. Considering that the Industry's estimated annual requirements of mulberry silkworm seed is around 1700 lakh dfls. and that one chawkie centre can conveniently handle about 0.5 lakh dfls. only per annum, it is clear that these centres can hardly make any impact on the Industry. Adequate funds are the basic need of the Industry and we understand that the Central Silk Board has been urging the State and Central Governments to extend liberal grants and loans. There has been practically no improvement in the methods of mulberry silk worm rearing in the multi-voltine states of Mysore, West Bengal etc. The individual silk worm rearers continue to adopt various rearing techniques involved during the larval period from hatching of the worms to spinning of cocoons. The percentage of worms spinning the cocoons is said to vary between 40% and 50%, while another 30% to 40% is lost due to disease. Consequently, the effective rate of rearing is only 10% to 20%. The average yield of cocoons per 100 dfls. is 22-24 kgs. in India as against 60-65 kgs. with about 5% mortality in Japan where incubation and collective chawkie-rearing are adopted universally and the worms in advance stages are "branch-fed". The Board, however, proposes to popularise inexpensive rearing huts of a standard design type among the rearers and the Government and licensed seed agencies, so that the production of silk worm seed and the collective rearing are conducted in ideal conditions.

#### **4.6. Supply and Performance of Disease Free Layings**

4.6.1. The indigenous production of examined and disease-free seed of mulberry as well as non-mulberry varieties is stated to be inadequate to meet the country's requirements. The first major step is thus to ensure adequate supply of examined seed, in respect of which the "Working Group" on sericulture set up by the Government of India in 1959 laid utmost stress and observed "This work is of such

an important character that on the ability of the sericulture departments to gear up the seed organisation on rational and scientific lines to meet this demand, would depend the future of the entire Industry". The requisites of rational seed supply include, *inter alia*, efficient organisation for supervision of the production techniques and ensuring disease free supply of seed. The Table below shows the number of Government and licensed grainages and the disease-free layings (Dfls) produced during 1968, 1969, 1970 and 1971 in the important mulberry silk producing States of Mysore, West Bengal and Jammu and Kashmir.

TABLE 3  
*Production of Layings*

Item	Year	Mysore	West Bengal	Jammu and Kashmir
No. of Government grainages	1968	53	7	N. A.
	1969	63	13	6
	1970	67	13	6
	1971	71	13	6
Layings produced in Government grainages (in '000 Nos.)	1968	28994	4839	3697
	1969	31280	10334	4031
	1970	31450	6730	5086
	1971	30939	6058	4860
% of Total	1968	30	17	100
	1969	33	32	100
	1970	30	24	100
	1971	28	25	100
No. of licensed grainages	1968	450	N.A.	..
	1969	491	24	..
	1970	561	24	..
	1971	596	24	..
Layings produced in licensed grainages (in '000 Nos.)	1968	69331	24112	..
	1969	64516	11471	..
	1970	73774	10612	..
	1971	78656	9994	..

Item	Year	Mysore	West Bengal	Jammu and Kashmir
% of Total . . .	1968	70	83	..
	1969	67	36	..
	1970	70	37	..
	1971	72	41	..
Layings used untested	1968	..	N.A.	..
	1969	..	10208	..
	1970	..	11188	..
	1971	..	8154	..
% of Total . . .	1968	..	N.A.	..
	1969	..	32	..
	1970	..	39	..
	1971	..	34	..
Total layings used (in'000 Nos.)	1968	98325	28951	3697
	1969	95796	32013	4031
	1970	105224	28530	5086
	1971	109595	24206	4860

4.6.2. It will be seen from the above Table that commensurate with the States Crash Programme to increase production of raw silk, the production of layings in Mysore increased by 10 per cent in 1971 compared to 1968. In Jammu and Kashmir also it has increased by as much as 30% during the periods under comparison. This improvement is a healthy sign particularly as at the time of the last inquiry, a general decline in sericulture activities had been noticed in that State and the total number of layings in 1968 were 8% lower than those in 1965. We had, therefore, recommended in paragraph 8.7.7 of our last Report that urgent attention should be devoted to the solution of the problems of the Sericulture Industry in that State. We are informed that the Jammu and Kashmir Industries Corporation Ltd. have proposed a Crash Programme to be launched from the beginning of 1971-72 for a period of 10 years involving an outlay of Rs. 7.21 crores with a view to step up production of raw

silk to 1.5 lakh kg. by 1981-82. In West Bengal production of layings increased initially in 1969 by as much as 10 per cent but showed a decline of a little over 16 per cent in 1971 compared to 1968. The State Government has not answered our general questions and the reasons for this decline are, therefore, not known but when a similar decline was noticed at the time of our last inquiry in 1969 it was stated to be due to excessive drought in 1967 and heavy rains in 1968 which resulted in inadequate availability of mulberry leaves. The present decline may also be attributable to the same reason, namely, inadequacy of mulberry leaves due to the fall in the mulberry acreage noticed in 1970.

4.6.3. West Bengal continues to use 30 to 40 per cent of untested layings. We had observed in para 8.7.6 of our last Report that untested and diseased layings are liable to infect other healthy layings and recommended that the basic principle that all layings must be tested should be implemented and that the State Government of West Bengal might also enact suitable legislation to ensure that the seed producing agencies were licensed and adequately equipped for testing layings. The Central Silk Board has informed us that the basic principle referred to above is being observed in all the States and that legislation prohibiting the use of unexamined seed would be enacted in West Bengal as soon as the present seed organisation is sufficiently strengthened to meet the entire requirements of the rearers. We share the view of the Working Group that as between tested and untested seeds, there will be a difference of about 10 lbs. in the yield of cocoons per 100 dfls. We therefore consider that any shortfall in the supply of layings by prohibiting the use of untested layings will be more than compensated by the increase in the yield of cocoons if only examined seed is allowed to be used. The absence of legislation prohibiting the use of untested layings in West Bengal has led to the use of such layings to the extent of over one-third of the total layings in that State. *It would therefore be desirable as stated in paragraph 8.7.6 of our 1969 Report, if the State Government of West Bengal could enact early suitable legislation to ensure that the seed producing grainages are licensed and adequately equipped for testing layings.*

4.6.4. Details of the performance of the Dfls; namely, cocoons produced, layings used per kg. of raw silk etc. are given in the following Table :

TABLE 4  
*Performance of the Dfls used*

Item	Year	Mysore	West Bengal	Jammu and Kashmir
Cocoons produced per Dfls. of Seed used (In kg.)	1968	0.231	0.137	0.160
	1969	0.208	0.157	0.220
	1970	0.268	0.157	0.198
	1971	0.253	0.149	0.211
Layings used per kg. of raw silk produced (In Nos.)	1968	63.00	108.00	77.00
	1969	70.59	98.20	82.26
	1970	56.06	90.00	115.59
	1971	60.22	92.74	101.25
Cocoons used per kg. of raw silk produced in kg. (Renditta)	1968	20.00	16.40	11.00
	1969	14.72	15.44	16.95
	1970	15.04	14.14	23.11
	1971	15.26	13.78	21.35

4.6.5. The quantity of cocoons produced per Dfls of seed increased in 1971 compared to 1968 in all the three States, thus showing an improvement in the quality of seed used as well as in rearing. This improvement in the quality of seed is also reflected in reduction in the ratio of layings used per kg. of raw silk as well in renditta in case of Mysore and West Bengal. The number of layings used in these States per kg. of raw silk declined from 63 in 1968 to 60 in 1971 in Mysore and from 108 to 92 in the case of West Bengal, while renditta has come down from 20 to 15 in the case of the former and from 16 to 14 in case of the latter. It is, however, unfortunate that notwithstanding the fact that Jammu and Kashmir produces only univoltine cocoons and all the seed are tested, the number of cocoons used there per kg. of raw silk has increased from 77 in 1968 to 101 in 1971, as a result of which renditta has increased from 11 to 21. In fact, the ratio of layings used per kg. of raw silk, as shown

in Table 12 of our last Report has deteriorated from 53 in 1966 to 59 in 1967, and to 77 in 1968. *We would, therefore, strongly recommend that immediate steps be taken to arrest this continued deterioration in the ratio of cocoons used per kg. of raw silk in the State of Jammu and Kashmir.*

#### 4.7. Conclusion :

4.7.1. The combined effect of improvements claimed in mulberry cultivation, seed production and silkworm rearing should be reflected in improvement in the quantity of raw silk produced and the resultant renditta obtained. It has been claimed by the Central Sericultural Research & Training Institute, Mysore that the relative performance of the new methods if adopted would be as under as compared to the old and conventional ones.

TABLE 5  
*Relative Performance of the new methods compared to the conventional ones*

(Per Hectare)

Item	Mul- berry pro- duc- tion (kg.)	Leaf co- con tions	Cocoons produc- tion (kg.)	Rend- itta (kg.)	Raw Silk (kg.)
1. Rainfed, existing practice of rearing & conventional races.	3,000	20.0	150.0	16	9.4
2. Rainfed, 50 kgs. N/ha new races & new techniques of rearing.	6,000	17.5	342.8	12	28.6
3. Irrigated, Conventional races & existing rearing practices.	10,000	20.0	500.0	14	35.7
4. Irrigated, 200-250 kgs. N/ha, new races and improved rearing techniques.	20,000	17.5	1143.0	12	95.2
5. Irrigated, 200-250 kgs. N/ha, new bivoltine hybrids and improved rearing techniques.	20,000	17.5	1143.0	10	114.3

4.7.2. It has been stated by the Central Silk Board that the extremely satisfactory results obtained in the field of research could not however be implemented on a field scale due to paucity of funds for providing irrigation, setting up Extension Wings and building up the necessary incubation and chawkie rearing centres as a result of which there has been little or no improvement at all in the cocoons produced per dfls of seed used, layings used per kg. of raw silk and the renditta. *We, therefore, recommend that the Government may examine the financial needs of the Central Silk Board and provide such further assistance as may be found to be really necessary.*

5.1. The following Table shows the production of mulberry and non-mulberry raw silk in the country since 1968.

TABLE 6

*Production of mulberry and non mulberry raw silk*

(In '000 Kg.)

Year	Mulberry	Non-mulberry	Total
1968	1745(75)	572(25)	2317
1969	1758(76)	540(24)	2298
1970	2258(80)	586(20)	2844
1971	2143(79)	577(21)	2720
1972 (Jan-Sept)	1535(85)	277(15)	1812

N. B. Figures in brackets indicate the percentage share in the total production.

5.2. Production of raw silk which declined slightly in 1969 increased to 28.44 lakh kgs. in 1970 but has gone down to 27.20 lakh kgs. in 1971 representing, however, an overall increase of 17 per cent over the period 1968 to 1971. The proportion of mulberry raw silk to the total increased from 75 per cent in 1968 to 79 per cent in 1971.

### 5.3. Mulberry Raw Silk:

5.3.1. The production of mulberry raw silk by the three processes, namely, filature, cottage basins and charkha during 1968, 1969, 1970, 1971 and 1972 (Jan-Sept) is as follows:—

TABLE 7  
*Mulberry Raw Silk Production*

(In '000 Kgs.)

	1968	1969	1970	1971	1972 (Jan- Sept.)
Filature	185	153	190	179	136
% to Total	11	9	8	8	9
Charkha	1100	1138	1546	1407	818
% to Total	63	65	68	66	53
Cottage basin	460	467	522	557	581
% to Total	26	27	23	26	38
	1745	1758	2258	2143	1535

5.3.2. Production of mulberry raw silk increased by 22.7 per cent in 1971 as compared to that in 1968, representing an average annual growth rate of 7.6 per cent which may be considered very satisfactory when compared to the growth rate of a little more than 2 per cent achieved between the period 1965 and 1968. Production of filature silk, however, declined by about 3 per cent as a result of which its proportionate share in the total mulberry production declined from 11 per cent in 1968 to 8 per cent in 1971. The percentage share of cottage basin has also remained almost the same although its production increased by 21 per cent during the period under comparison. Consequently the proportion of charkha silk the production of which outpaced the filature and cottage basin increased from 63 per cent in 1968 to 66 per cent in 1971, thus reversing the trend of charkha replaced by cottage basin as observed by us at the time of our last inquiry.

5.3.3. State-wise production of mulberry raw silk under each of these three categories for 1968, 1969, 1970, 1971 and 1972 (Jan-Sept) is given in Appendix III. The installed and active capacities are given in Appendix IV. The position in the important mulberry silk producing States is discussed below :

5.3.4. Mysore is the chief mulberry raw silk producing State in India and its share in the country's production of mulberry raw silk increased from 80.5 per cent in 1968 to 84.5 per cent in 1971. Raw Silk produced in Mysore is, however, from the hybrids of multivoltine bivoltine races. It is well known that the raw silk produced by these hybrids is not of required quality and does not conform to the international standards. As already stated in para 4.4.1 a package deal research project was recently conducted on the possibilities of rearing of bivoltine races and their hybrids in Mysore, and the State is now stated to be poised at the threshold of becoming an important bivoltine State. There are at present seven Government controlled filature units located at Kollegal, Kanakapura, Mamballi, Mysore, Chamrajnagar, T. Narsipur and Santhemarahally with a combined installed capacity of 1354 basins and one private unit at Mellur with an installed capacity of 40 basins. The utilisation of capacity ranged between 48 per cent (Kollegal unit) and 87 per cent (Kanakapura unit). Besides, there are 3300 Cottage basins and 4391 Charkha basins, all of which are stated to be active at present. The State has increased its mulberry raw silk production from 1406 tonnes in 1968 to 1810 tonnes in 1971. Filature Silk production, however, declined from 133 tonnes to 124 tonnes, while cottage basin silk increased from 440 tonnes to 534 tonnes and Charkha basin from 833 tonnes to 1152 tonnes during the same period.

5.3.5. West Bengal is the second largest mulberry raw silk producing State whose share in the total production has declined from 15.3 per cent in 1968 to 12.3 per cent in 1971. There is only one State controlled filature unit at Malda with an installed capacity of 114 basins, of which only 60 are stated to be active and even these do not work all the days for want of quality cocoons. The utilisation of capacity was of the order of 20 per cent in each of the years 1969 and

1970 and 30 per cent in 1971. Besides, there are 853 cottage basins and 3305 Charkha basins but all do not work all the time. The State which witnessed a progressive fall in production from about 311 tonnes in 1965 to 268 tonnes in 1968 continued to show the same trend and the production dropped further to 263 tonnes in 1971 as a result of devastating floods. Its production of filature and cottage basin has increased respectively from 1000 kg. in 1968 to 3000 kg. in 1971 and from 19000 kg. in 1968 to 20000 kg. in 1971, while that of Charkha declined from 2,48,000 kg. in 1968 to 2,40,000 kg. in 1971.

5.3.6. Jammu and Kashmir is the third mulberry raw silk producing State accounting for a little over 2 per cent. of the total production, all of which is entirely by filatures located one each at Srinagar with an installed capacity of 418 basins and the other at Jammu with 159 basins. The utilisation of capacity in the case of Jammu unit is stated to be of the order of 75 per cent, while that of Srinagar unit is not known. Despite the fact that we sounded a note of warning (in para 8.10.21 of our last Report) that unless effective steps were taken to rejuvenate the Industry in the State, it might disappear in the next ten years or so, not much headway has been made to increase the production. Though the production increased from 47,000 kg. in 1968 to 49,000 kg. in 1969 it declined to 44,000 kg. in 1970 but increased only slightly to 48,000 kg. in 1971. The State Government has started a Crash Programme for a period of ten years involving an outlay of Rs. 7.21 crores with a view to stepping up the production of raw silk to the extent of 1.5 lakh kg. by 1981-82.

5.3.7. Uttar Pradesh is another State where, as recommended by the Filature Committee of the Central Silk Board, reeling of the silk is confined to the filature system. There is only one filature unit in the State with an installed capacity of 30 basins and all these are stated to be active. Production increased from 2920 kg. in 1968 to 3698 kg. in 1971 representing an increase of 26 per cent. We had, in para 8.6.8 of our last Report, recommended that since the district of Dehra Dun in that State was heavily forested it would be desirable to undertake mulberry plantation in the forest areas

where rearing operations can be conducted in order to provide plentiful supply of leaves to rearers and that a planned silvicultural project for mulberry plantation was bound to yield good results and thereby increase the production of mulberry silk manifold. The Government of Uttar Pradesh has informed us that efforts were under progress for raising the mulberry trees near the existing and prospective silk worm rearing villages.

#### 5.4. Non-Mulberry Raw Silk :

5.4.1. State-wise production of different varieties of non-mulberry raw silk is given in Appendix V. The following Table indicates its total production since 1968.

TABLE 8  
*Production of non mulberry Raw Silk*  
 (In '000 Kg.)

	Tasar	Eri	Muga	Total
1968	290 (50.7)	212 (37.1)	70 (12.2)	572
1969	252 (46.7)	216 (40.0)	72 (13.3)	540
1970	353 (60.2)	164 (28.0)	69 (11.8)	586
1971	335 (58.0)	170 (29.5)	72 (12.5)	577
1972 (Jan-Sept)	165 (59.6)	75 (27.1)	37 (13.3)	277

(N. B. Figures in brackets indicates percentage to total)

5.4.2. Production of non-mulberry raw silk as in the case of mulberry is erratic and not uniform. It declined from 572 tonnes in 1968 to 540 tonnes in 1969 but increased to 586

tonnes in 1970 and again declined to 577 tonnes in 1971, representing an overall increase of a bare one percent as compared to that in 1968.

### *Tasar Silk*

Production increased by 61 tonnes in Bihar, by 2 tonnes in West Bengal but declined by about 10 tonnes each in M.P. and Orissa in 1971 over 1968. There is, however, an overall increase from 290 tonnes in 1968 to 335 tonnes in 1971, representing an increase of about 15 per cent.

### *Eri Silk*

Production of Eri silk declined from 212 tonnes in 1968 to 170 tonnes in 1971. In Assam which is the chief producer of Eri silk, it declined from 203 tonnes in 1968 to 165 tonnes in 1971 and in West Bengal from 8 tonnes to 4 tonnes. No Eri silk had been produced since 1969 in Bihar, M.P. and Orissa.

### *Muga Silk*

Muga silk which forms about 12 per cent of the total non-mulberry silk is produced only in Assam where it has increased marginally from 70 tonnes in 1968 to 72 tonnes in 1971.

5.4.3. The Task Force of the Planning Commission for Sericulture Industry has set an annual target of 46 lakh kgs. for the production of raw silk of all varieties by the end of the Fifth Plan with a developmental outlay of Rs. 32 crores providing new jobs for about 7.50 lakh people.

## **5.5. Trading results of the filature units**

5.5.1. Particulars of sales turnover, capital employed, gross profit/loss and net profit/loss of the three filature units, namely, Government Silk Filature, Kollegal, Government Silk Filature, Kanakapura and Kisan Silk Industries Pvt. Ltd.,

Mellur, all in Mysore State, for the years 1967-68 to 1970-71 are given below.

TABLE 9  
*Trading results of the Filature units*

(Rs. in lakhs)

Particulars		Govt. Silk Filatures Kollegal*	Govt. Silk Filatures Kanakapura	Kisan Silk Industries Pvt. Ltd. Mellur
Sales Turn Over . .	1967-68	35.07	26.77	3.47
	1968-69	45.34	26.75	1.64
	1969-70	33.95	30.08	5.92
	1970-71	..	28.50	6.21
Capital Employed . .	1967-68	37.83	8.79	1.06
	1968-69	34.22	6.13	1.17
	1969-70	26.18	3.93	1.55
	1970-71	..	16.58	1.94
Gross Profit/Loss . .	1967-68	(—)9.60	1.17	(—)9.09
	1968-69	(—)38.49	(—)0.82	(—)0.13
	1969-70	(—)8.63	0.76	0.01
	1970-71	..	1.92	0.23
Net Profit/Loss . .	1967-68	(—)12.98	(—)0.35	(—)0.12
	1968-69	(—)43.05	(—)2.39	(—)0.16
	1969-70	(—)12.66	(—)0.31	(—)0.03
	1970-71	..	0.83	0.15

\*Government Silk Filatures, Kollegal was trifurcated in 1970-71.

5.5.2. It will be seen that except during the years 1967-68, 1969-70 and 1970-71 in the case of Government Silk Filatures Kanakapura and during 1969-70 and 1970-71 in the case of Kisan Silk Industries Pvt. Ltd., the Filature units have not made any profits. Even where profits have been

made, they were not sufficient to cover the interest, depreciation, etc. The reasons for their uneconomic working were dealt with in paragraph 8.10.17 of our last Report. We, however, hope that they will be able to work on profitable lines in the near future when the good results obtained in research make a mark in the field practices.

6.1. At the time of our last inquiry, the utilisation of capacity by the two spun silk mills in the country together

was found to be less than 50 per cent during the three years 1966, 1967 and 1968.

**Silk Waste and Spun Silk Yarn**

The mills contended that in spite of the linking arrangement under which the ex-

porter of silk waste had to supply to the spun silk mills a quantity equal to that exported, they were facing difficulty regarding availability and high prices of silk waste. The Silk Waste Committee appointed by the Silk Board had also, in its Report submitted in August 1968, came to the conclusion that adequate supplies of silk waste were not available to the mills and accordingly suggested modification of the linking ratio to the effect that for every kilogram of silk waste exported two kilograms of silk waste be made available to the spun silk mills. It was also found that while Government filatures in Mysore were incurring losses, the spun silk mills were able to make reasonable profits. In view of these considerations we had recommended in para 8.11.6 of our last Report that as spun silk yarn had substantial export potential it was advantageous to internally convert all the available silk waste and then export it and that the then existing export policy be reviewed and if necessary, further augmentation of installed spinning capacity be considered. Government, while agreeing that it was to the national advantage to export silk yarn rather than silk waste, observed that the then existing spinning capacity including the capacity licensed appeared to be adequate for this purpose. The Government Spun Silk Mills, Chennapatna has informed us that efforts were made to export the indigenous yarn but because of its high cost of production, it could not do so and that it would be possible to find markets abroad if import entitlements were offered against exports. This would also enable the mills to work more shifts and improve the profitability. The Central Silk Board has now informed us that the export

policy for silk waste is constantly under review and the quantum of exports to be allowed is decided from time to time after taking into account the actual needs of the spun silk mills. At present, exporters are stated to be permitted to export 4 Kgs. of silk waste against the supply of 1 Kg. to the spun silk mills.

6.2. The following Table shows the production and internal consumption and exports of silk waste since 1968.

TABLE 10

*Production, internal consumption and exports of silk waste*

(In Tonnes)

Yarn	Production	Internal consumption by spun silk mills	Exports	Total	Percentage of exports to production
1968 .	965	370	428	798	54
1969 .	997	321	489	810	60
1970 .	1187	358	574	932	62
1971 .	1083	333	633	966	66
1972 (Jan.-Sept.)	727	228	566	794	71

6.3. It will be seen from the above Table that following the increase in the trend of production of raw silk, silk waste production has been on the increase but this increase in the production of silk waste has not, however, reflected in any increase in its internal consumption which has, on the other hand, declined by 9 per cent in 1971 as compared to that in 1968 necessitating increase in its exports from 54 per cent of the total production in 1968 to 66 per cent in 1971.

6.4. The capacity and production of spun silk yarn by the two spun silk mills operating in the country for spun yarn are indicated below :

TABLE 11  
*Capacity and Production of Spun Silk Mills*

(In Kgs.)

	Installed capacity (Double shift)		Production			
	In 1969	At present	1969	1970	1971	1972
<i>I. Govt. Spun Silk Mills, Chennapatna:</i>						
Noil Yarns .	90,000	90,000	44,479 (A)	42,826 (49.4)	54,565 (47.6)	51,753 (60.6)
Spun Silk Yarn	66,600	68,250	38,941 (A)	36,351 (57.1)	39,255 (53.3)	41,571 (57.5)
Cotton Yarn						
Blended Yarn J			1,625 (2.4)	6,082 (8.9)	1,250 (1.8)	
	156,600	158,250	85,045 (A)	85,259 (54)	95,060 (52)	93,324 (60)
<i>II. Assam Spun Silk Mills</i>						
Noil Yarns	22,000	24,000	20,117 (83.8)	20,203 (84.2)	21,896 (91.2)	26,206 (109.2)
Spun Silk Yarn	34,000	34,000	20,390 (60.0)	23,372 (68.7)	23,557 (69.3)	21,760 (64.0)
Cotton Yarn						
Blended Yarns J			1,374 (4.0)	1,096 (3.2)	335 (1.0)	
	56,000	58,000	41,881 (72)	44,671 (77)	45,453 (78)	47,966 (82.7)
Total of I & II .	212,600	216,250	126,926	129,930	140,513	141,29

NOTES : (A) Data furnished by the Central Silk Board. The unit has, however, furnished them as 80,000 kgs., 50,000 kgs. and 130,000 kgs.

(Figures in brackets are percentages of utilisation of capacity)

6.5. It will be seen from the above Table that though utilisation of capacity by both the mills has increased in respect of both noil yarn as well as spun silk yarn in 1972 as compared to that in 1969, it is still under-utilised in both the mills in respect of spun silk yarn. This is stated to be due to production being regulated to demand which is on the decline resulting in increased stocks, as will be seen from the following Table. In 1972, while the production of noil yarns registered a small fall in the case of Chennapatna mills, the second unit stepped it up.

TABLE 12

*Sales and Closing Stock of Spun Silk Yarn*

(In kgs.)

Year	Sales	Closing stocks
1969 . . . . .	52,340	14,940
1970 . . . . .	51,449	27,896
1971 . . . . .	32,440	53,868
1972 (Jan.-Sept.) . . . . .	77,479*	39,361

\*Includes exports.

6.6. One of the exporting companies from Bombay has represented to us that the two Spun Silk Mills are not able to produce Spun Silk Yarn of high grade quality and tensile strength acceptable to the weavers for using it as 'WARP' due to their technical inefficiency and inability as a result of which there has been considerable under-utilisation of their installed capacities necessitating export of huge quantities of silk waste and that they had been producing more of synthetic fibre and blended yarn in place of silk waste yarn. The company has, therefore, suggested that spun yarn which is now completely banned be permitted to be imported under the export promotion scheme against the exports of silk waste, as in the case of raw silk and that the present import duty of 50 per cent *ad valorem* plus Rs. 8.50 per kg. on it be reduced to 30 per cent *ad valorem* so that the export of quality fabrics made of imported spun yarn could be boosted up.

6.7. We invited the comments of the Central Silk Board in the matter. The Board has stated that as observed by the Silk Waste Committee in its Report (1968) the Government Spun Silk Mills, Chennapatna could work only  $1\frac{1}{3}$  shifts while the Assam Spun Silk Mills could work  $1\frac{1}{2}$  shifts due to the imbalance in the existing preparatory and processing machinery and that the mills have actually worked more than one shift capacity. It is also contended that most of the weaving units had changed from spun silk fibres to other fibres which were comparatively cheaper when the Government Spun Silk Mills, Chennapatna had closed down its operations from 1958 to 1961 and the Assam Spun Silk Mill had not started working. The mills had thus to contend with a severe competition both intra-industry-wise from other non-silk fibres as also inter-industry-wise from hand spun and hand reeled tasar silks. The production of spun silk yarn is accordingly regulated with due regard to its demand. The Silk Board has also stated that it had not received any serious complaints regarding the unsuitability of the yarn for 'WARP' and that the indigenous spun silk can be used in the 'WARP' for giving a more compact texture. In fact, the demand for indigenous spun silk yarn particularly from the export section was stated to have become so acute at one time that the Board had to advise the mills in 1968-69 to set apart 20 per cent of their production for allocation to the manufacturer-exporters.

6.8. The Government Spun Silk Mills, Chennapatna have informed us that they are adopting the standards prescribed by the Indian Standard Institution and Quality Control Methods and that quality of spun silk and noil yarn conform to the desired standard. The Assam Spun Silk Mills have also stated that the quality of their products conform to the desired standard in regard to the tensile strength.

6.9. As stated in para 6.1 above the country's spinning capacity for silk waste is adequate to convert all the available silk waste into yarn for domestic requirements as also for exports. The export of spun silk yarn also seem to be possible as in November, 1972, 220 bales of Indian mulberry spun yarn for the first time was exported to Japan. A third spun silk mill with a spindlage of 3000 is expected to be

commissioned shortly. This mill is intended to use exclusively tasar waste for the production of high grade spun silk yarn. *For these reasons we do not consider it necessary or even desirable to allow import of spun silk yarn or to reduce the import duty on such yarn.*

### 6.10. Trading Results of the Spun Silk Mills :

6.10.1. Data on sales turn over, capital employed, gross profit and net profit of the two spun silk mills for the years 1968-69 to 1971-72 are given below :

TABLE 13

#### *Trading Results of the Spun Silk Mills*

(In lakh Rs.)

Sl. No.	Particulars	Year	Govt. Spun Silk Mills, Chennapatna	Assam Spun Silk Mills, Jaggi Road
1	Sales Turn Over	1968-69	51.33	29.52
		1969-70	67.10	31.56
		1970-71	57.83	24.79
		1971-72	N.A.	20.83
2	Capital employed	1968-69	57.37	64.50
		1969-70	57.82	66.89
		1970-71	94.13	69.17
		1971-72	N.A.	70.54
3	Gross profit after depre- ciation	1968-69	10.68	1.16
		1969-70	15.93	2.11
		1970-71	11.63	1.89
		1971-72	N.A.	0.79
4	(3) as % of (2)	1968-69	18.6	1.8
		1969-70	27.6	3.2
		1970-71	12.3	2.7
		1971-72	N.A.	1.1
5	Net profit	1968-69	4.41	1.15
		1969-70	9.30	2.10
		1970-71	4.57	1.89
		1971-72	N.A.	0.79

6.10.2. The net profit of Government Spun Silk Mills, Chennapatna which was Rs. 4.41 lakhs in 1968-69 increased significantly to Rs. 9.30 lakhs in 1969-70 but declined to Rs. 4.57 in 1970-71. Similarly, the net profit of Assam Spun Silk Mills increased from Rs. 1.15 lakhs in 1968-69 to Rs. 2.10 lakhs in 1969-70 but declined to Rs. 1.89 lakhs in 1970-71 and further to Rs. 0.79 lakhs in 1971-72.

7.1. The following Table shows the apparent availability of raw silk since 1968.

**Demand for Raw Silk**

TABLE 14  
*Apparent Availability of Raw Silk*

Year	Production (Lakh kgs.)	Imports (Lakh kgs.)	Apparent availability (Lakh kgs.)	Index No. with 1968 as base
1968.	23.19	0.37	23.56	100
1969.	22.98	0.55	23.53	100
1970.	28.44	0.32	28.76	122
1971.	27.20	0.35	27.55	117
1972 (Jan.-Sept.)	18.12	0.30	18.42	104

7.2. It is seen that the apparent availability of raw silk was more or less the same during the first two years but increased by about 22 per cent during the subsequent year, (namely 1970) mainly due to increased domestic production which, however, declined in 1971 resulting in decline in availability by about 5 per cent. The extent of consumption of raw silk for internal purposes and for exports can be deduced from the estimated production of silk fabrics and their

exports given in the following Table:—

TABLE 15

*Production and Exports of Silk Fabrics*

Year	Estimated production of silk fabrics	Exports	Estimated quantity of silk used in exports	Total availability of Raw Silk	Col. (4) as % of Col. (5)
	1	2	3	4	
		(Lakh sq. meters)	(Lakh sq. meters)	(Lakh kgs.)	(Lakh kgs.)
1969	.	282.00	98.60	8.3	23.53
1970	.	345.00	86.09	7.2	28.76
1971	.	350.00	44.98	3.7	27.55
1972	.	370.63	45.77	3.8	18.42 (Jan.- (Sept.))

7.3. It will be seen from the above Table that consumption of silk for exported silk fabrics declined considerably from 35 per cent of the country's output in 1969 to a bare 13 per cent in 1971. Notwithstanding the above declining trend and despite the fact that production of man-made fibres has also been steadily increasing, the Central Silk Board is of the opinion that as silk finds manifold uses in the production of a wide range of union or blended fabrics to meet the mercurial fashion trends, the demand for natural silk fabrics for exports will keep on increasing and that it is also picking up for internal use due to increase in the purchasing power as a result of the Plan activities. The Board, therefore, expects the consumption to increase at an annual rate of 2 per cent over the next three years and accordingly, places the demand at 29.00 lakh kgs. in 1972, 30.50 lakh kgs. in 1973 and 31.00 lakh kgs. in 1974. Accordingly a production target of 31.00 lakh kgs. has been fixed for the Fourth Plan period ending March 1975.

### 8.1. Marketing of Cocoons :

8.1.1. In one of our early Reports on this Industry [1953 Report—para 16(a)], we had pointed out that fluctuations in 8. Selling System and the prices of cocoons had been frequent Selling Prices and fairly large and that so long as such fluctuations occurred, the cocoon rearers could not be expected to take adequate interest in mulberry cultivation as well as in cocoon rearing and recommended that the various State Governments should enact at an early date the necessary legislation for the establishment of cocoon markets and for regulating their prices with a floor and ceiling. It was, however, found at the time of our subsequent inquiry in 1958 that neither the creation of notified markets nor the fixation of prices with a ceiling would be feasible. We, therefore, recommended in para 7.5.14.2 of our Report of that year that the State Governments should take positive steps to encourage the formation of rearers' co-operative Societies for chawki-rearing and for marketing of cocoons. In recent years, some attempts have been made to encourage formation of marketing co-operatives, particularly in non-mulberry sector for voluntary cocoon transactions but only a fraction of the cocoon produce passes through them as is seen from the system of marketing still prevailing in the different states. In Mysore, the notified cocoon markets set up under the Mysore Silkworm Seed (Regulation of Production, Supply and Distribution) Act, 1959, constitutes the major Centres for sale of cocoons. The bidders make a visual examination of the lots and apply the factual and numerical tests before announcing their prices which would also depend upon their needs and capacity. In West Bengal, there is only one common cocoon market set up by the State Government at Malda. The Centre conducts test reeling and makes payment to the rearers on the basis of renditta obtained. But the system in vogue in practically the whole of the State is the old one of purchasing cocoons from the rearers through dalals or brokers who charge their commission. In Jammu and Kashmir, the rearers are bound to deliver all their cocoons to Government Filature Units since the trade is a State monopoly. Although the price is not fixed on the basis of silk content or on the basis of Renditta, cocoons are classified

by numerical tests since 1970 for the purpose of price fixation. In other States like Andhra Pradesh, Tamil Nadu, Uttar Pradesh etc. the departments undertake to purchase the cocoons at a reasonable price giving due consideration to the various factors like market trends, return from other commercial crops and also agricultural wage level.

8.1.2. In the non-mulberry sector until recently, there was practically no marketing organisation and rearers brought their cocoons from the interior of forests and sold at fluctuating rates in the neighbouring areas. In recent years, efforts have been made to organise rearers' co-operatives to market cocoons at reasonable rates. Such co-operatives exist in Bihar, Madhya Pradesh and Orissa.

8.1.3. It is however, seen that there is no scientific method of testing cocoons. The quality is determined by the application of empirical methods derived from past experience in cocoon trade and reeling industry. In the circumstances, there may be an unhealthy competition amongst various bidders without ensuring that the primary producer gets a fair price commensurate with the quality of cocoons produced by him. It is, therefore, desirable that some attempt towards classification of cocoons be made for payment on the basis of quality determined by such classification, so that there would be an incentive for the rearers to raise better cocoons.

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## 8.2. Marketing of Raw Silk :

8.2.1. The present practices in marketing of the raw silk in India are also primitive and far from the organised ones prevailing in Japan and other advanced sericultural countries. In Mysore and West Bengal the major portion of raw silk produced passes through the dealers of middlemen who frequently advance money to the reeling units for purchase of cocoons. This system is unhealthy and leaves room for exploitation of small reelers. Besides, in times of scarcity or low production, the prices suddenly flare up and affect the silk weavers. In Jammu and Kashmir there is no difficulty in the marketing of raw silk since the major portion of the State's production is released to the local silk weaving industry at fixed prices and the surplus is disposed of under

a tender system. But there is little of silk testing and conditioning since the bulk of the silk produced in the country is of charkha variety. Even the raw silk produced by filatures is still below the International Grade. *There should, therefore, be silk testing and conditioning and also a system of release of raw silk at regulated intervals and at regulated prices based on quality. The proposed Raw Material Bank, referred to later in this paragraph, if and when set up can play a useful role in this regard.*

### 8.3. Prices of Cocoons and Raw Silk :

8.3.1. Table 16 gives the trends of prices of mulberry cocoons, indigenous filature raw silk and imported raw silk in the principal markets since 1969. The boost in exports of silk fabrics in 1969-1970 had its effect on the prices of all the indigenous silk products which touched their peak during that year. During 1970-71, there was a general downward trend and wide fluctuation due mainly to fall in exports.

(a) **Mulberry Cocoons.**—The prices of mulberry cocoons picked up from the level of Rs. 3.96 to Rs. 7.98 per kg. during the first quarter of 1969 to Rs. 5.42 to Rs. 9.19 in the second quarter. The levels were maintained during the third quarter with a further improvement in the last quarter. But the fluctuations in the third and fourth quarters were rather too violent, mainly due to the variations of qualities of cocoons obtained during September-October on account of inclement weather conditions. In the major part of 1970, the cocoon prices continued to maintain high levels because of the continued rise in prices of raw silk. However, the prices which were ruling between Rs. 8.50 and Rs. 11.49 in the third quarter decreased to Rs. 4.80 to Rs. 9.30 in the last quarter. During 1971, they have generally come back to the levels that were prevalent in the beginning of 1969. During 1972, the prices ranged between Rs. 5.60 to Rs. 13.50 per kg.

(b) **Indigenous Filature Raw Silk.**—The prices of Mysore filature raw silk which ruled between Rs. 130.00 and Rs. 135.83 per kg. during the first quarter of 1969 shot up continuously to Rs. 203.00 to Rs. 211.00 during the first

quarter of 1970. The maximum price which touched Rs. 211 in March 1970 dropped to Rs. 128.00 to Rs. 145.00 per kg. in the last quarter of 1971. The price ruled between Rs. 148.00 and Rs. 220.00 per kg. during 1972. For Jammu and Kashmir raw silk, the price quoted in Varanasi market during the first quarter of 1969 was Rs. 177.50 to 200.00 per kg. It rapidly picked up to rule around Rs. 325.00 per kg. in the second quarter of 1970 and thereafter there was a downward trend. The price range was Rs. 170.00 to Rs. 214.00 per kg. in the last quarter of 1971 and Rs. 185.00 to 207.00 per kg. during the first quarter of 1972. The prices continued to rise and during the last quarter, it ruled between Rs. 227.00 to Rs. 290.00 per kg.

**(c) Prices of Imported Raw Silk in Varanasi Market.—**

The prices showed an upward swing from the level of Rs. 223.00 to Rs. 252.75 per kg. in January-March 1969 to Rs. 319 to 354 per kg. by December 1969. In 1970 the prices continued to remain at a higher level. They touched the peak level in the third quarter of 1970 at Rs. 388.00 and thereafter showed a decline to rule from Rs. 297.00 to Rs. 320.00 per kg. in the last quarter of 1971. During 1972 the price ruled between Rs. 300 to 425 per kg.

(d) The release prices of imported raw silk of Korean origin fixed by the Central Silk Board is Rs. 300 per kg. ex-godown Bombay.

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8.3.2. Unstabilised prices of cocoons as well as raw silk have a direct effect on the fortunes of the Sericulture Industry. If the prices of cocoons drop suddenly farmers would prefer to grow other food crops and consequently the area under mulberry would shrink. On the other hand, if they shoot high the cost of production would rise and affect the demand which may eventually disrupt the Silk Industry. The Central Silk Board is stated to have, therefore, recently submitted to Government a scheme for setting up a Raw material Bank which aims at disciplining the market conditions for mulberry filature raw silk (indigenous and imported), imported raw silk, mulberry pierced cocoons and throwsters' silk waste, having due regard to the international market prices and the indigenous cost of production. The scheme

is stated to be under the consideration of the Ministry of Commerce. The salient features of the proposed scheme for Raw Material Bank are as follows:

- “(a) To provide for ‘off-the-shelf’ supply of essential raw materials to manufacturing exporters of natural silk fabrics at steady prices;
- (b) To arrest wide fluctuations and bring about a measure of stability in the cocoon and silk markets;
- (c) To relieve the primary producers from the unhealthy influence and exploitation by the middle-men and the Mahajans and provide for them a fair price that would ensure sufficient incentive for production;
- (d) To generate quality consciousness among the primary producers of cocoon and raw silk as well as among the consumers thereof, which would help to effectively control the quality of the fabrics manufactured for export;
- (e) The Bank will undertake the procurement and supply of all essential raw materials (primary, secondary and tertiary) both imported and indigenous needed for the production and processing of natural silk fabrics for export;
- (f) The Scheme will be operated in two stages, the first stage covering imported raw silk, indigenous high grade filature silk and tasar cocoons (whole and pierced). The second stage would cover mulberry pierced cocoons, throwsters silk waste, dyes and chemicals (imported and indigenous) and imported embellishments;
- (g) The quality and quantity of raw silk to be imported will be decided in consultation with an Advisory sub-committee to be set up and the total import per annum shall be initially about 50,000 kgs.;
- (h) High quality indigenous filature silk from the Government Filature units in Mysore and Jammu and Kashmir will be procured at 30,000 kgs. and 20,000 kgs. per annum respectively;

- (i) The price differential between imported and indigenous 'A' grade of Jammu and Kashmir Filature reeled raw silk will be Rs. 20 per kg. In the case of Mysore Filature silk, the differential will be Rs. 25 per kg. A differential of Rs. 2 for each grade above or below 'A' grade will be adopted. Quality below 'E' Grade shall not be procured;
- (j) The Bank will have the option to procure indigenous filature silk from non-Government units also;
- (k) With regard to silk waste, spun silk yarn and noil yarn, the Bank may enter into a working arrangement with the spun silk mills without physical procurement;
- (l) A minimum procurement price for filature raw silk based on the fair price indicated by the Tariff Commission in its Report (1969) shall be given;
- (m) Tasar cocoons (whole and pierced) will be purchased by the Bank directly from the primary producers/collectors at the prevailing market rate. To begin with, the total quantity to be procured shall be limited to 10,000 kahans per annum in the case of whole cocoon and 5,000 kg. in the case of pierced cocoons. The primary producers shall be assured of a minimum floor price of Rs. 65 per kahan for whole cocoon as recommended by the Tasar Committee".

8.3.3. The Central Silk Board is of the view that the Raw Material Bank Scheme would meet in essence the objects of a pooled price for the indigenous and imported raw silk. The TASAR SILK BANK has since been set up. The matter of setting up the Mulberry Silk Bank is still under the consideration of Government.

TABLE 1.6  
*Price Trends of Mulberry Silk Products*

(Rs./kg.)

Year	Period (Quarter ending)	Cocoons (Chunarjagar Market)	Indigenous Filature Raw Silk (Kolle- gal-Mysore State)	Indigenous Filature Raw Silk (Jammu and Kashmir)	Imported Raw Silk (Varanasi Market)
1969	March	3.96 to 7.98	130.00 to 135.83	177.50 to 200.00	223.00 to 252.75
	June	5.42 to 9.19	130.00 to 150.00	168.75 to 205.40	253.75 to 269.25
	September	4.68 to 9.76	152.80 to 175.00	187.50 to 215.00	270.00 to 300.00
	December	4.60 to 11.14	164.00 to 192.00	223.00 to 245.00	319.40 to 354.00
1970	March	6.70 to 13.00	203.00 to 211.00	262.00 to 300.00	330.00 to 368.00
	June	6.50 to 11.25	198.00 to 201.00	295.00 to 325.00	370.00 to 387.00
	September	8.50 to 11.49	187.00 to 195.00	288.00 to 323.00	385.00 to 388.00
	December	4.80 to 9.30	179.00 to 185.00	243.00 to 302.00	340.00 to 380.00
1971	March	5.42 to 10.00	167.00 to 190.00	232.00 to 260.00	325.00 to 375.00
	June	3.37 to 7.15	137.00 to 169.00	225.00 to 255.00	320.00 to 327.00
	September	3.50 to 7.26	132.00 to 150.00	193.00 to 252.00	297.00 to 320.00
	December	3.30 to 8.40	128.00 to 145.00	170.00 to 214.00	
1972	March	6.50 to 11.84	148.00 to 185.00	185.00 to 207.00	300.00 to 320.00
	June	6.80 to 13.50	148.00 to 185.00	190.00 to 210.00	Not Quoted
	September	5.60 to 13.40	185.00 to 215.00	190.00 to 225.00	Not Quoted
	December	6.50 to 13.50	200.00 to 220.00	227.00 to 290.00	370.00 to 425.00

### 8.4. Quality and Testing of Raw Silk :

8.4.1. At the time of our inquiry in 1966 there were complaints about the lack of uniformity and evenness in the indigenous raw silk, variation in thickness in terms of denier and tensile strength, greater degumming losses and inadequacy of lusture. At the time of our last inquiry in 1969 also, individual consumers commented adversely on the quality of Indian Silk which was stated to have varied not only from bale to bale but also from skein to skein. It was reported that the denier entered on the declaration form was different from that of the silk content in the "Book". It was contended that the defects in filature silk were due not only to the poor quality of cocoons but also owing to lack of adequate supervision and inefficient reeling at the Government filatures and absence of quality control. While the representative of Government of Mysore had stated that declarations on the labels were based on the tests made on a random basis by the testing house at Mysore, it was agreed that the testing house at Mysore was not equipped with upto date machinery for testing in accordance with I.S.I. or international specifications, as it did not possess a conditioning house providing the requisite temperature and humidity for testing operations. The same appeared to be true of the testing house at Calcutta. It was further pointed out that even where the quality of the silk was not the same as declared, the supplier was not prepared to modify the rate conforming to the quality actually supplied. There were no standards of quality at all for Charkha silk and it was taken for granted that the raw silk supplied by Charkhas was generally of poor quality. We had, therefore, observed in para 10.4 of our last Report that the quality of indigenous raw silk, instead of improving appeared to have deteriorated since 1966 and that it was difficult to understand why steps were not taken to equip properly the testing houses particularly when large sums were available for the purpose to research institutions and the Central Silk Board and hoped that this shortcoming would be removed urgently so that testing might be rendered scientifically correct and acceptable. We had also recommended in para 10.1 of the Report that the filatures might join the I.S.I. Certification Marking Scheme. The Government of India expressed the view that owing to lack of adequate arrange-

ments for grading and testing of silk, it was considered premature for filatures to join the I.S.I. Certification Marking Scheme and that this might be feasible later when adequate arrangements for testing and grading were made. The Central Silk Board has now informed us that the question of equipping properly the testing houses is under active consideration. The Government of West Bengal and Mysore have already imported the necessary equipment which is expected to be installed soon in the respective State Filatures at Malda and Bangalore. It has been reported that the Central Silk Conditioning and Testing House of the Central Silk Board started functioning at Srinagar in December, 1972.

8.4.2. We addressed 83 consumers—29 Silk Throwing and Twisting factories and 54 manufacturers of silk fabrics in regard to the present quality of indigenous raw silk but only two among the former and one from the latter replied and even these have not answered our querries in the matter. The Central Silk Board while informing that there has been significant improvement in the production of qualitative silk during the last two years, has, however, conceded that on account of the inherent weakness in the multivoltine silk races in respect of neatness standard, most of the filature silk produced in the country has not yet reached the internationally acceptable standard. In order to popularise the I.S.I. Standards, it submitted proposals for the introduction of a quality control inspection scheme along with the supply of essential testing equipment, cocoon drying and baby boilers to the small scale reeling establishments and this proposal is stated to be currently under the consideration of the Government. The Board has also informed us that bulk of the filature raw silk produced at present in the country does not lend itself for gradation according to the existing I.S.I. standards on account of the inherent low neatness standard. Under the proposal for setting up of a Raw Material Bank which, as already mentioned, is under the consideration of the Government, the Board proposes to handle the indigenous filature raw silk on a graded basis in a modified form of the I.S.I. standard placing emphasis only on size deviation, evenness, cleanliness, maximum deviation and winding. In view of the above mentioned difficulties, *we suggest that the I.S.I. may examine the question of suitably modifying the standard specifications.*

9.1. In an age of advanced science and technology, it is only through recourse to research that any industry could expect to survive and compete in the international sphere. For Sericulture Industry,

**9. Research and Training** there are at present four research Stations and three Service Stations under the administrative control of the Central Silk Board :—

### *Research Stations*

1. Central Sericultural Research and Training Institute, Mysore.
2. Central Tasar Research Station, Ranchi.
3. Central Sericultural Research Station, Berhampore, (West Bengal).
4. Sericultural Research Station, Titabar (Assam)

### *Service Stations*

1. Central Silkworms Seed Station, Pampore (Kashmir).
2. Silkworm Seed Station, Coonoor (Tamil Nadu).
3. Central Tasar Silkworm Seed Station, Lakha (Madhya Pradesh).

9.2. The research programmes of these stations are reviewed and approved by a high level Research Co-ordination Committee consisting of scientists drawn from Agricultural Science Institutions of the country. The results achieved by these stations are stated to be of high order and comparable to those of Japan. The accent is on evolution of better strains of mulberry, better breeds of silkworm races and improved methods of plantation and rearing techniques, details of which have been discussed earlier in paragraph 4. The major item on which great attention is being paid is stated to be to determine the characteristics of suitable silkworm races for different regions and seasons under a crash programme for popularisation among the silkworm rearers. Introduction of tasar culture on oak plantation is another notable programme that is stated to have been initiated. It is,

however, unfortunate that the results of those research projects are stated to have not reached the field on a large scale due to lack of proper extension wings as mentioned earlier in paragraph 4.3.4. *We would, therefore, like to emphasise the fact that the future of the Indian Sericulture Industry lies not only on the extent to which research is carried out but also on the extent to which the results of such research are applied in actual practice on as wise a range as possible.*

9.3. It is reported that there is paucity of trained personnel and scientific and technical literature on Sericulture Industry. To overcome this, Central Silk Board has started imparting training at the Central Sericultural Research and Training Institute, Mysore. A refresher Course for the benefit of the Departmental Officers of the State is also offered. Similarly, for the benefit of the field staff of the Khadi and Village Industries Commission special arrangements are made to give a course of training for six weeks. The Board offers Fellowships leading to Ph.D. and M.Sc., Degrees. Under the Colombo Plan, one Officer of the Board was on deputation to Japan during 1969-70. A study team under the Chairmanship of the Vice-Chairman of the Board visited Korea, Japan and Thailand in October, 1969. A 3-man delegation of Soviet Sericultural Scientists visited India in March, 1970. The Board also participated in the International Silk Congress in May, 1971 held at Paris. A 3-man Study Team under the Chairmanship of the Director, Central Sericultural Research and Training Institute, Mysore visited Soviet Russia in May, 1971. The Director, C.S.R.I., Mysore was deputed on a study tour of one month to Japan during July 1971.

10.1. Barring Raw silk, imports of all the other items of silk (silk yarns, silk fabrics etc.) have been banned, since the licensing period October, 1967-March, 1968. Direct imports of raw silk by actual users were allowed till March 1970 as replenishment against exports of silk fabrics.

**10. Import Control Policy and Imports** Since prices of imported silk have a great impact on the domestic market, we had recommended in para 13.3 of our last Report that imports and distribution of imported raw silk should be canalised through the State Trading Corporation or the Central Silk Board in order to avoid any

sudden fluctuations in the domestic prices and also to reduce the high profits earned by importers and dealers in raw silk. The Government of India had accepted this recommendation and accordingly, canalised the imports and distribution of imported raw silk through the Central Silk Board since the licensing period April, 1970-March 1971. The Board has observed that the policy has imparted a salutary effect on the speculative conditions within the country, as is evident from the trends of prices for the imported raw silk in Varanasi Market. The Prices which touched the peak level of Rs. 388/- in the third quarter of 1970 showed a declining trend and ruled between Rs. 297.00 to Rs. 320.00 per kg. in the third quarter of 1971.

10.2. The following table shows the actual imports of raw silk since 1969-70.

TABLE 17  
*Imports of Raw Silk*  
*Qty. in lakh kgs. and value in lakh Rs.*

Country of Origin	1969-70 Qty.	1969-70 Value	1970-71 Qty.	1970-71 Value	1971-72 Qty.	1971-72 Value	1972-73 Qty.	1972-73 Value	
Japan	.	0.16	19.35	0.11	18.38	0.12	18.61	0.08	16.73
S. Korea	.	0.29	35.33	0.24	38.80	0.08	12.91	0.22	35.48
Italy	.	0.02	2.53	0.10	15.50	0.01	1.45	0.06	9.72
Brazil	.	..	..	..	..	0.01	0.23	0.02	4.52
<b>TOTAL</b>	.	0.47	57.21	0.45	72.68	0.22	33.20	0.38	66.45

Imports of raw raw silk have been on the decline.

10.3. In January, 1971 the Ministry of Foreign Trade referred to us for our views the request of South Korea for tariff concession on raw silk imported from that country. In March 1971 the Commission's considered views on a pro-

posal made by the Chairman of the Central Silk Board for permitting the imports of a limited quantity of raw silk for distribution to the handloom silk weaving sector of Varanasi and Bangalore as also to the Zari Industry in addition to the imports permitted against export of silk fabrics were forwarded to Government. We had, observed in para 13.2 of our 1969 Report that we were not fully convinced about the necessity of importing raw silk to cater to the domestic market because during the public inquiry at that time we were informed by the interests concerned that though certain specialised sectors of the Silk Industry and Zari Industry required imported raw silk, it was in fact not being utilised for the fabrics which were being exported, since it was not economical to use that silk even as warp in view of the fact that the price of imported raw silk was ruling at as high as Rs. 269/- per kg. in Varanasi market as against Rs. 115/- to 194/- per kg. for the indigenous filature raw silk. We had not, however, ruled out the necessity nor were against such imports if required in future. We were only not in favour of the concessional rates of duty on imports of raw silk. We had accordingly recommended in the same para that if at any stage imported raw silk was needed to be used for re-export after fabrication, full draw back on duty be allowed but concessional rates of duty on the plea that such silk was needed for export or for substitution of exported textiles were not justified. We, therefore, examined the two references from the Ministry in the context of the changed conditions of demand and supply for the filature raw silk in the country, and having regard to the "current trends" in raw silk prices and the exports of mulberry silk fabrics. Our recommendations in the matter made to the Ministry in April 1971 were as under :—

- “(i) The present policy of canalisation of all imports of raw silk through the Central Silk Board should be continued;
- “(ii) A ceiling of one lakh kgs. should be fixed in respect of imports per annum, of which 75,000 kg. should constitute the replenishment against the actual exports to be given to the exporters as quota and the balance of 25,000 kgs. to be used by the Central

Silk Board for allotment to the actual users essentially requiring high grade silk and also to manufacturers of export products. Such direct allotment would remove the present lacunae in the policy by reducing the margin of profit to the exporter on the replenished raw silk quota, bringing about a moderating influence on the domestic silk market;

(iii) To compensate the reduction in the monetary return to the exporter, consequent on the reduced margin of profit on the replenished raw silk quota, he might be granted complete draw-back on the quantity of imported silk actually utilised in the production of mulberry filature silk fabrics exported. The quantity of imported silk for purpose of draw-back should be arrived at as under :

- (a) The quantity of imported silk used in the fabrics exported for the purpose of drawback may be taken at 25 per cent of the weight of the fabrics exported as certified by the Central Silk Board, irrespective of its actual origin and the type of mulberry silk used in the production of the fabric.
- (b) Such draw-back should be permitted only in respect of fabrics woven wholly from mulberry filature silk including Charkha and Cottage basins, and
- (c) The replenishment quota of imported filature silk to the exporter may also be fixed on the same basis as indicated above."

10.4. The Government of India has not, however, announced their decision in the matter so far. *While reiterating our recommendations quoted above, we however, hope that the production of Bivoltine silk in Mysore in the near future referred to in para 4.4.1. would enable India to produce silk of International Grade and thus do away with the need for such imports in the foreseeable future.*

11.1. Since there is a potential demand for silk goods in the International markets, Government, with a view to

11. Export assistance and exports.

bridging in the gap in the unfavourable balance of payment position, has been encouraging their exports through an import replenishment scheme which entitles the exporters to import raw materials (namely raw silk dyes and chemicals, embellishments etc.) required for the production of the exportable silk goods. Besides, cash assistance on certain varieties of exports and draw-back of full customs duty paid on the imported materials are also allowed to sustain the export tempo. The salient features of these schemes for the period 1969-70 to 1973-74 are stated below.

11.2. During the year 1969-70, all the natural silk products were classified into the following six groups and exporters were entitled to receive import replenishment to the extent shown against each of them:—

Product Group No.	Name of export product	Import replenishment percentage
P. 1.1	Natural silk fabrics and made up articles containing 50% or more of mulberry silk by weight.	40% subject to a ceiling price of Rs. 25 per Sq. metre
P. 1.2	Ready made garments of natural silk fabrics containing 50% or more of mulberry silk by weight.	35%
P. 1.3	Natural Silk Fabrics and made up articles containing less than 50% of mulberry silk by weight and containing metallic yarn.	10%
P. 1.4	Natural silk fabrics and made up articles containing less than 50% of mulberry silk by weight and not containing metallic yarn.	5%
P. 1.5	Ready made garments of natural silk fabrics containing less than 50% of mulberry silk by weight and containing metallic yarn.	12½%
P. 1.6	Ready made garments of natural silk fabrics containing less than 50% of mulberry silk by weight and not containing metallic yarn.	9%

11.3. During the licensing period 1970-71 the six groups mentioned above, were reduced to four and another four new groups shown hereunder were added, thus making the total number of groups into eight. The distinction between those containing metallic yarn and those not containing metallic yarn was removed. Accordingly, all natural silk fabrics and made-up articles containing less than 50% of mulberry silk by weight whether or not containing metallic yarn (P.1.3 and P.1.4) were brought into a single group under P.1.3 and made entitled to an import replenishment quota of  $16\frac{1}{2}\%$ . Similarly, all readymade garments of natural silk fabrics containing less than 50% of mulberry silk by weight whether containing or not containing metallic yarn (P.1.5 and P.1.6) were grouped into No. P.1.4. and made entitled to 16% of import replenishment. The quotas for the items following under the groups P.1.1. and P.1.2 were also increased to 40% and 38% respectively. Following were the four new groups added:—

Group No.	Name of the export product	Import replenishment percentage
P. 1.5	Tasar silk fabrics and made up articles containing 100% tasar silk yarn by weight and containing metallic yarn.	10%
P. 1.6	Tasar silk fabrics and made up articles containing 100% tasar silk yarn by weight and not containing metallic yarn.	5%
P. 1.7	Ready made garments of tasar silk fabrics containing 100% tasar silk yarn by weight and containing metallic yarn.	12%
P. 1.8	Ready made garments of tasar silk fabrics containing 100% tasar silk yarn by weight and not containing metallic yarn.	9%

11.4. All the items falling under the above four groups were also given cash assistance at the rate of 10 per cent of the F.O.B. value.

11.5. During the licensing period 1971-72 the number of groups were again reduced to six by removing the distinction between those containing metallic yarn and not containing metallic yarn in case of tasar silk fabrics and made up articles (P.1.5 and P.1.6) and ready made garments of tasar silk fabrics (P.1.7 and P.1.8). These four items P.1.5, P.1.6, P.1.7 and P.1.8 were classified under a single group No. P.1.5 and made entitled to an uniform import replenishment quota of 10 per cent. Similarly, all the items falling under P.1.7 and P.1.8 were grouped under P.1.6 and given the uniform quota of 12% replenishment. The cash assistance of 10% was continued. The quota in respect of the items falling under P.1.1. and P.1.2 were reduced to the level of 1969-70 licensing period (viz. 40% and 35% respectively), while it remained unchanged at 16½% and 16% respectively for items falling under P.1.3 and P.1.4.

11.6. During the licensing period 1972-73, the number of groups were further reduced to four merging the items falling under P.1.5 into P.1.3 and those falling under P.1.6 into P.1.4, but the quotas remained unchanged as below:—

Group No.	Name of the Export product	Import replenishment percentage
P. 1.1	Natural Silk Fabrics and made-up articles containing 50% or more of mulberry silk by weight.	40% subject to a ceiling price of Rs. 25 per sq. metre in respect of sarees and dress materials and Rs. 20 per sq. metre for other items.
P. 1.2	Ready made garments of natural silk fabrics containing 50% or more of mulberry silk by weight.	35%
P. 1.3	Natural silk fabrics and made up articles containing less than 50% of mulberry silk by weight and/or containing no mulberry silk yarn.	10%
P. 1.4	Ready made garments of natural silk fabrics containing less than 50% mulberry silk by weight and/or containing no mulberry silk yarn.	12%

Besides the replenishment quotas, the items falling under P.1.3 and P.1.4 were granted cash assistance at 10% of the F.O.B. value.

11.7. For the current licensing period, April 1973 to March 1974, the same policy of import replenishment is continued except that a new item P.1.5—Natural Silk Embroidery Thread has been added with a quota of 40 per cent. The cash assistance scheme has, however, been discontinued.

11.8. The Central Silk Board has informed the Commission that the slow progress of exports during 1972-73 was due to the high cost of production and stiff competition from the Peoples' Republic of China and Thailand. The Board considers that there is justification for granting additional assistance to exporters in order to improve their competitive strength in the foreign market and, pending the findings of the detailed studies undertaken by the High Power Committee headed by the Textile Commissioner and constituted by the General Body of the Central Silk Board for this purpose, has urged the Government that the level of assistance available to the exporters (i.e. import replenishment and cash assistance) during 1972-73 against exports of natural silk goods should be continued during 1973-74.

11.8.1. The Government, however, while accepting the Board's suggestion to extend the import replenishment scheme against export of natural silk goods for 1973-74, has not taken any decision regarding the cash assistance scheme. The Board, it is understood, is pursuing the matter with the Ministry of Commerce.

### **11.9. Exports**

The figures in the following Table reveal that despite the incentives provided for boosting exports of silk fabrics the upswing witnessed in 1969 could not be sustained and stabilised and exports have been on a declining trend in regard to both mulberry as well as tasar fabrics.

TABLE 18  
*Exports of Silk Fabrics*

(Qty in '000 sq. mtrs.  
 Value in '000 Rs.)

Year	Mulberry Silk Fabrics		Tasar Silk Fabrics		Total	
	Qty.	Value	Qty.	Value	Qty.	Value
1969	8585	123350	1275	19653	9860	142008
1970	7827	121302	777	13572	8604	134874
1971	3853	58649	643	11450	4496	70099
1972	3900	62446	679	13586	4580	76622

**11.10. Exports of mulberry fabrics to traditional and non-traditional markets**

11.10.1. The countrywise exports of mulberry silk fabrics are given in Appendix VI. The following summary Table shows their exports to traditional and non-traditional markets.

TABLE 19  
*Exports of Silk Fabrics to traditional and non-traditional markets*

Year	Traditional markets		Non traditional markets		Total	
	Qty.	Value	Qty.	Value	Qty.	Value
1969.	590	9819	7995	113531	8585	123350
1970.	679	12311	7148	108990	7827	121302
1971.	803	13656	3050	44992	3853	58649
1972.	838	14199	3063	48247	3901	62446

Exports of mulberry silk fabrics are increasing to traditional markets and decreasing to non-traditional markets thus reversing the trend noticed in the earlier years. There is a general fall in the exports to most of the countries in the non-traditional markets. In the years 1971 and 1972 West Germany tops as the largest buyer of Indian mulberry silk fabrics followed by U.S.A. in the non-traditional market and Malaysia in the traditional market.

11.10.2. The following Table shows the variety-wise exports of mulberry silk fabrics since 1969.

TABLE 20  
*Variety wise exports of mulberry silk fabrics*

Item	(Value in '000 R.s.)			
	1969	1970	1971	1972
Scarves . . . . .	79929	75230	17137	18600
Dress materials . . . . .	27928	25236	21202	22198
Sarees . . . . .	8279	10014	10125	11809
Ready-made garments . . . . .	5574	6932	5567	7009
Ties . . . . .	1103	3225	3890	2197
Others . . . . .	537	665	728	633
<b>TOTAL . . . . .</b>	<b>123,350</b>	<b>121,302</b>	<b>58,649</b>	<b>62,446</b>

It will be seen from the above table that the slump in total exports is mainly attributable to decline in the exports of scarves. Ready made garments whose earnings increased in 1970 as compared to those in 1969 also showed a decline in 1971 but improved in 1972. Sarees, Ties and "others" have generally shown some improvement.

### 11.11. Exports of Tasar Silk Fabrics

11.11.1. Countrywise exports of Tasar silk fabrics are given in Appendix VII. It will be seen therefrom that their earnings fell by 46 per cent in 1970 as compared to those in

1969 and by 16 per cent in 1971 as compared to those in 1970. The main cause for the fall in tasar exports was said to be the uneconomic price obtained in respect of tasar silk throughout the year 1970. West Germany, as in the case of mulberry silk fabrics, has been the main customer for tasar silk fabrics in 1971 accounting for 46 per cent of total exports. Exports to France, Italy, Switzerland, Austria and Yugoslavia had increased in 1971 as compared to those in 1970. However, exports to Japan, U.S.A., and Sweden had recorded a steep fall. There was an improvement in export earnings in 1972 over 1971 by 18 per cent. The increase in exports of tasar silk fabrics were mainly to West Germany.

### **11.12. Efforts to Boost Exports**

11.12.1. The steep fall witnessed in the export of silk fabrics adversely affected our cocoon and silk market and it was feared that it would have repercussions on the future development and prospects of the Sericulture Industry. The Government of India had, therefore deputed in October 1971, a 4-Member Indian Silk Delegation to West Europe, U.S.A., Japan and Hong Kong under the Chairmanship of Shri Devraj Urs, the then Chairman of the Central Silk Board, to make a thorough study of the demand pattern which was likely to emerge in the near future so as to enable the Indian Silk Industry to plan its production programme. The Delegation whose Report is under the consideration of the Government is reported to have examined the less known factors instrumental for the current downward trend and the pattern of demand in the various silk markets and also conducted an in-depth study synthesising various problems pertaining to export production on the one hand and the development of the Sericulture Industry in general on the other. It came to the conclusion that there was no fall in demand for silk fabrics in most of the major silk markets abroad and that there were, on the other hand tremendous possibilities for stepping up the exports. In pointing out that promotional efforts so far made in the field of silk exports have not been adequate and effective, the Delegation observed that the following factors were responsible for the steep fall in exports in recent years :—

- (i) Non-compliance with the changing fashion trends;

- (ii) Dumping of material—scarves and stoles—**during** boom period;
- (iii) Deterioration in quality;
- (iv) Influx of too many exporters into the market with the resultant *inter-se* competition which brought down the prices and also the quality standards;
- (v) Fluctuation in prices and high costs particularly in the case of tasar fabrics;
- (vi) Inadequacy of publicity efforts; and
- (vii) Failure on the part of some of the exporters to conform to the business ethics particularly in the field of quality with reference to the accepted sample, delivery schedule, prices etc.

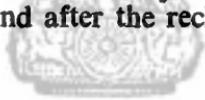
*The above observations of the Delegation for the steep fall in export are matters for serious concern and the Government will no doubt look into them.*

11.12.2. Expansion of silk export with an accent on stability seems to be the theme of these recommendations. In observing that costs, particularly in the field of tasar, had been found to be far in excess of those of Chinese, the Delegation stressed the immediate need for an imaginative export strategy that lay emphasis on aggressive salesmanship, effective publicity, variety and diversification, besides continued exploration of new markets. It has accordingly made a number of recommendations pertaining to improvement in quality and reduction in costs of raw silk, namely, setting up of a single organisation exclusively entrusted with the co-ordinated planning and development of silk exports, market intelligence, comprehensive publicity drive with show rooms and overseas offices, strengthening of Extension Wings, stepping up of silk production, marketing of reeling cocoons on rational basis, strengthening the existing silk conditioning and testing houses and setting up of an additional one in Jammu & Kashmir, selectivity in silk export trade and setting up of a suitable Research Station for undertaking technological research in silk. In case of Tasar sector also, the Delegation has bestowed considerable attention and recommended effective exploitation of the nature-grown oak plantations in the

sub-Himalian region, additional cash assistance to the exporters so as to enable them to improve their competitive strength, permission to import reeled Tasar yarn to overcome the shortage of tasar raw material.

12.1. While accepting our recommendation to continue protection to the Sericulture Industry for a further period of five years ending with 31st December, 1974 Government in their Resolution stated that they proposed to effect a slight rationalisation of the then existing rates of protective duties recommended by us on (i) silk yarn

including silk sewing thread and silk waste [Item Nos. 46(1), 47 and 47(1) I.C.T.] and (ii) silk fabrics [Item No. 48 I.C.T.] by adopting a single rate of duty in each case instead of varying rates in force as they felt that the differences had ceased to have any special significance. Accordingly, by the Indian Tariff (Amendment) Act No. 53 of 1969, dated the 27th December, 1969 the articles falling under the above I.C.T. Items were reclassified omitting item No. 47(1) covering silk sewing thread. A single rate of duty was also given for all the articles under one item. The following Table indicates the classification and rates of duty on the protected items of Sericulture prior to and after the reclassification and rationalisation :—



सन्तामेव जयते

TABLE 21

*Classification and rates of protective duty prior to and after rationalisation*

I.C.T. Item No.	Name of the item	Rate of duty	I.C.T. Item No.	Name of the item	Rate of duty
1	2	3	4	5	6
46	Silk raw (excluding silk waste, noils & silk cocoons	50 per cent <i>ad valorem</i> plus Rs. 8.80 per Kg. (The duty on Raw Silk was reduced to 30 per cent <i>ad valorem</i> from 28-3-68	46	Silk worm cocoons suitable for reeling raw silk (not thrown)	50 per cent <i>ad valorem</i> plus Rs. 8.80 per Kg.
46(1)	Silk waste and noils	50 per cent <i>ad valorem</i>	46(1)	Silk waste (including cocoons unsuitable for reeling, silk noils and pulled or gauzed rags)	50 per cent <i>ad valorem</i> plus Rs. 8.80 per Kg.
47	Silk yarn including thrown silk warps and yarn spun from silk waste or noils	..	47	Silk yarn including silk sewing thread	50 per cent <i>ad valorem</i> plus Rs. 8.80 per Kg.

but excluding sewing thread

(a) Silkyarn including thrown silk warps 50 per cent *ad valorem*  
plus Rs. 8.80 per kg.

(b) Yarn spun from waste silk 50 per cent *ad valorem*  
plus Rs. 8.80 per kg.

(c) Yarn spun from noils 50 per cent *ad valorem*

47(1) Silk sewing thread 50 per cent *ad valorem*

48 Fabrics not otherwise specified containing more than 90 per cent of silk including such fabrics embroidered

47(1)	50 per cent <i>ad valorem</i>	Omitted	100 per cent <i>ad valorem</i> plus Rs. 18.70 per kg.
48	..	48	..
		Fabrics not otherwise specified containing more than 90 per cent of silk including such fabrics embroidered	Fabrics not otherwise specified containing more than 90 per cent of silk including such fabrics embroidered with yarn or thread of man-made-fibres
(a)	Ponges	100 per cent <i>ad valorem</i> plus Rs. 18.70 per kg.	..
(b)	Fuji Boseki and corded (excluding white cord)	100 per cent <i>ad valorem</i> plus Rs. 18.70 per kg.	..
(c)	Other sorts	100 per cent <i>ad valorem</i> plus Rs. 13.80 per kg.	..

**NOTE:**—Under sub-clause (4) of Clause 25 of Finance Act, 1973 Auxiliary duty of customs at 5 per cent of the value of goods is leviable on all the above items with effect from 1st March, 1973.

12.2. In December, 1970 the Government of India in the Ministry of Foreign Trade invited our comments on a representation from the Bombay Yarn Merchants Association & Exchange Ltd. asking for reduction of duty on all items of silk to 30 per cent *ad valorem* on par with that on Raw Silk on the plea that Government in their Resolution had proposed to effect rationalisation of the rates by adopting a single rate of duty. We had replied to Government that the intention was to rationalise the rates of protective duty within each category and not to bring down the rates in all cases to 30 per cent *ad valorem* as on raw silk, and added that the matter would be considered further at the time of the Biennial Review. The practice has been to determine the rate of protective duty required for raw silk and different types of silk yarns independently by comparison of estimated fair ex-works prices of indigenous products with the landed cost, ex-duty, of comparable imported products. As regards silk fabrics, the protective duty was determined as compensatory duty depending upon the content of raw silk or silk yarn in the different types of silk fabrics. The protective rates of duty assessed and recommended for silk yarns and silk fabrics in 1966 and 1969 Reports were higher than the 30% duty recommended for raw silk. In view of this, *it is not desirable to reduce the protective duties on silk yarns and fabrics to the same level as that applicable to raw silk as it would disturb the inter se relationship in the import prices of these three products.*

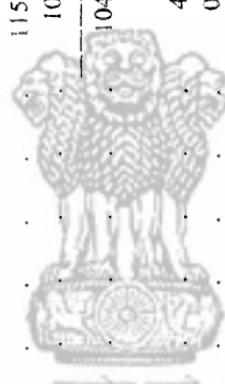
13.1. In the 1969 Inquiry, cost data for the year 1967-68 were called for from three filature units in Mysore State (Kanakapura, Kollegal and Mysore) and

**13. Cost of Production and ex-works price of Fair Raw Silk** estimates of future cost of production and fair ex-works price of 20/22 denier raw silk were made by the Commission on the basis of the weighted average for the three units.

The same worked out to Rs. 163.86 per kg. and Rs. 176.15 per kg. respectively. Mysore State continues to be major producer of all raw silk and also filature raw silk. We, therefore, obtained through the Central Silk Board cost data for the latest year 1971-72 for the same three units. From the monthly data received, the cost of production for the full year 1971-72, on weighted average basis, worked out as under :—

TABLE 22  
*Cost of Production of Filature Raw Silk for 1971-72*

Sl. No.	Particulars	(Rs. per kg.)		
		Kan-k- pura unit	Kollegal unit	Mysore unit
	Production (kgs.)		18,264	28,904
1	Cocoon Cost		115.29	133.16
2	Realisation		10.81	11.45
3	Net material cost (1—2)		104.48	121.71
4	Conversion cost :			
	(i) Fuel, Power and Light		4.95	3.03
	(ii) Stores		0.81	0.76
	(iii) Wages		20.85	27.54
	(iv) Other overheads (Salary, P.F. and Stratdics)		11.69	10.19
	TOTAL for 4		38.30	41.52
5	Depreciation		0.12	0.57
6	Cost of Production (3+4+5)		142.90	163.80
7	Cost of production estimated in 1969 for future three years		144.86	167.76



सत्यमेव जयते

13.2. It may be seen from the above Table that the actual costs of production of the three filature units in 1971-72 were lower than the estimates of the respective average costs of production made in 1969 for the three years, 1969-70 to 1971-72. We have not considered it necessary, for the limited purpose of this Review, to frame estimates of cost of production for the future. We are, therefore, basing our conclusions on the actual cost of production during the preceding year 1971-72.

13.3. To arrive at the ex-works price for the year 1971-72, return has to be added to the figures of cost of production. Return at 15 per cent on capital employed (working capital component being 3 months cost of production excluding depreciation) was allowed last time. Adopting this rate of return for the purpose of the current review, the fair ex-works prices would work out as under:—

	Cost of production	Return	Ex-works price
Kanakapura . . . . .	142.90	8.00	150.90
Kollegal . . . . .	163.80	14.89	178.69
Mysore . . . . .	168.92	12.70	181.62
Weighted average . . . . .	158.21	12.31	170.52

We are adopting the figure of Rs. 170.52 per kg. as the ex-works price of indigenous filature raw silk for purposes of comparison with the landed cost, ex-duty, of imported raw silk to assess the extent of tariff protection needed by the Sericulture Industry.

Imports of raw silk canalised through the Central Silk Board have been mainly from South Korea.

**14. Measure of Production** The c.i.f. prices of consignments of raw silk imported since April 1971 are given below.

	Month	c. i. f. price (Rs. per Kg.)
April 1971	.	148.96 to 152.38
June 1971	.	139.13
January 1972	.	140.47 and 148.96
March 1972	.	135.55
April 1972	.	148.75
May 1972	.	148.59 and 154.73
July 1972	.	154.00
August 1972	.	161.26
October 1972	.	188.72
December 1972	.	197.19
March 1973	.	212.45

The lowest rate was in March 1972 and since then, the trend in the c.i.f. prices was upward. Adopting the lowest of the c.i.f. prices given above, namely, Rs. 135.55 per kg., a comparison between the ex-works price and landed cost (ex-duty) is given below:—

1. c.i.f. price	.	135.55
2. Clearing charges	.	0.50
3. Landed cost without duty	.	136.05
4. Ex-works price	.	170.52
5. Difference between 4 and 3	.	34.47
6. Difference as a percentage of c.i.f.		25.4 per cent
7. Existing rate of protective duty	.	30 per cent <i>ad valorem</i>

It will be seen from the above comparison that the existing rate of protective duty is adequate for the indigenous raw silk even when the lowest c.i.f. price is adopted for comparison. The trend in the c.i.f. price, as pointed out above, being upward, *the existing rate of protective duty on raw silk affords further cushion to face any competition from imports. The rate of protective duty on other silk products are of a compensatory nature. Hence revision in the existing rates of protective duty on raw silk or silk products covered by I.C.T. Item Nos. 46, 46(1), 47 and 48 is not necessary.*

Our conclusions and recommendations are summa-

**15. Summary of conclusions and recommendations**

(1) There is urgent need to redouble efforts not only to arrest the declining trend but also to recover the lost area under mulberry cultivation in the State of West Bengal.

(Paragraph 4.2.4.)

(2) All out efforts should be made to expedite irrigational facilities, wherever possible, to the existing areas which are at present under rainfed conditions by enlisting the support of the banking institutions. Since Governmental efforts alone cannot provide irrigation to the entire area under rainfed conditions, the present loan-cum-subsidy of Rs. 5000/- per well may be suitably raised so as to enable the sericulturist to evince keener interest to provide irrigation to his mulberry gardens.

(Paragraph 4.2.11)

(3) Extension Wings for undertaking field trials and other propagation work should be expeditiously set up at each Research Station.

(Paragraph 4.3.4.)

(4) It would be desirable if the State Government of West Bengal could enact early legislation to ensure that the seed producing grainages are licensed and adequately equipped for testing layings.

(Paragraph 4.6.3.)

(5) Immediate steps should be taken to arrest the continued deterioration in the ratio of cocoons used per kg. of raw silk in the State of Jammu and Kashmir.

(Paragraph 4.6.5.)

(6) Government may examine the financial needs of the Central Silk Board and provide such further assistance as may be found to be really necessary. (Paragraph 4.7.2.)

(7) It is not necessary or even desirable to allow import of spun silk yarn or to reduce the import duty on such yarn. (Paragraph 6.9.)

(8) There should be silk testing and conditioning and also a system of release of raw silk at regulated intervals and at regulated prices based on quality. The proposed Raw Material Bank, if and when set up, can plan a useful role in these respects. (Paragraph 8.2.1.)

(9) The Indian Standards Institution may examine the question of suitably modifying the standard specifications of filature raw silk. (Paragraph 8.4.2.)

(10) The future of the Indian Sericulture Industry lies not only on the extent to which research is carried out but also on the extent to which the results of such research are applied in actual practice on as wide a range as possible. (Paragraph 9.2)

(11) While reiterating the recommendations relating to the import of raw silk made to the Ministry of Foreign Trade in April 1971 it is hoped that the production of bivoltine silk in Mysore in the near future would enable India to produce silk of International grade and thus do away with the need for such imports in the foreseeable future.

(Paragraph 10.3 and 10.4.)

(12) The observations of the 4-Member Indian Silk Delegation for the steep fall in export are matters for serious concern and the Government will no doubt look into them.

(Paragraph 11.12.1.)

(13) It is not desirable to reduce the protective duties on silk yarns and fabrics to the same level as that applicable to raw silk as it would disturb the *inter se* relationship in the import prices of these three products. (Paragraph 12.2.)

(14) Revision in the existing rates of protective duty on raw silk or silk products covered by I.C.T. Item Nos. 46, 46(1), 47 and 48 is not necessary. (Paragraph 14.)

15.1. We wish to express our thanks to the manufacturers, consumers, importers and the concerned Central and State Government Departments for furnishing to **15. Acknowledgements** us detailed information in connection with this Review. We are also thankful to the Central Silk Board for their valuable assistance at various stages of the investigations.

15.2. We place on record our appreciation of the hard work put in by the officers and staff of the Commission associated with this review.

D. P. ANAND,

*Chairman*

PRAMOD SINGH,

*Member*

M. B. PALEKAR,

*Member*

P. V. GUNISHASTRI

*Secretary.*

BOMBAY,

7th June, 1973.



## APPENDIX I

### (Vide Paragraph 4.2.1)

### Particulars of Development of Scheme During 1969-70 to 19-12-73

(Rs. in lakhs)

Sl. No.	Name of the State	1969-70			1970-71			1971-72			1972-73					
		Allocation— Approved by Board		Approval con- veyed by Board	Expen- diture		Allocation by Working Group	Expen- diture		Provision approved by Board		Expen- diture				
		No. of Work- ing Group	No. of Pro- schemes	vision	No. of Pro- schemes	vision	No. of Working Group	No. of Cost schemes	Number	No. of Working Group	No. of Cost schemes	Number				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
1	Andhra Pradesh	5.00	4	2.50	0.60	10	3.26	1.57	5.00	9	5.00	1.74	4.00	0.72		
2	Assam	29.00	13	14.50	9.85	12	21.36	20.54	19.50	8	20.61	16.46	37.34	3.36		
3	Bihar	10.00	13	9.28	3.74	12	11.63	2.34*	14.50	15	14.52	6.57	16.00	4.48		
4	Jammu and Kashmir	30.00	17	23.82	17.08	Tech. appro- val not issued	12.63	37.60	14	27.00	12.23	28.62	8.61			
5	Madhya Pradesh	4.00	2	0.72	0.18	7	14.36	6.39	25.84	8	25.85	8.48	23.50	5.96		
6	Myanmar	40.00	20	26.10	26.44	19	45.00	30.78	45.00	19	45.10	32.57	45.00	23.41		
7	Nagaland		2.00	Tech. approval not issued	Proposals not received		0.76		4	0.76	N.R.	N.R.	N.A.			
8	Odisha		3.00	0.45	0.34	7	3.10	1.16	3.31	10	3.31	2.01	3.57	0.77		
9	Punjab		3.00	2	1.50	0.74	2	1.75	0.53	3.00	3	2.96	0.55	1.68		
10	Tamil Nadu		17.00	16	13.45	8.91	12	14.40	8.50	9.87	10	9.97	8.18	14.84		
11	Uttar Pradesh		5.40	5	5.40	5.32	8	11.30	5.25	10.67	6	10.67	8.08	16.96		
12	West Bengal		20.00	20	5.51	3.18	26	6.31	0.17*	11.00	12	11.00	4.78	10.69		
13	Firnachal Pradesh		4.00	3	4.00	1.07	3	9.21	1.65	2.18	3	2.18	1.13	7.50		
14	Meghalaya			**			Proposals not received	5.00	5.00	5	5	3.55	2.93	N.A.		
15	N.E.F.A.		N.A.	Proposals not received			Proposals not received	N.A.	N.A.	Annual Plan proposals	N.A.	N.A.	N.A.	N.A.		
16	Manipur		N.A.	15	1.51	0.93	15	1.93	0.98	2.31	21	2.32	0.92	6.11		
17	Tripura		0.86	6	0.61	0.52	6	1.35	0.81	1.16	6	1.16	0.86	3.52		
	<b>Total</b>			<b>164.26</b>	<b>139</b>	<b>109.35</b>	<b>78.87</b>	<b>139</b>	<b>144.97</b>	<b>93.30</b>	<b>196.10</b>	<b>159</b>	<b>185.86</b>	<b>107.63</b>	<b>219.33</b>	<b>59.10</b>

\*Upto December, 1970 only.

(Source : Central Sikh Board)

## APPENDIX II

## (Vide Paragraph 4.2.2)

## Statewise area under mulberry Cultivation

State	Irrigated				Rainfed				Total			
	1968	1969	1970	1971	1968	1969	1970	1971	1968	1969	1970	1971
1. Andhra Pradesh	377	381	218	462	98	54	77	182	475	435	295	644
2. Assam	..	..	..	..	970	970	600	600	970	970	600	600
3. Bihar	8	8	10	130	130	100	101	138	138	108	108	111
4. Maharashtra	..	..	..	..	8	8	..	..	..	8	8	..
5. Madhya Pradesh	..	..	..	..	300	100	250	100	300	100	250	100
6. Mysore	16300	14322	17403	21612	67500	67149	70475	72737	83800	81470	87878	94349
7. Punjab	34	38	..	42	42	42	38	..	..	76	76	76
8. Tamil Nadu	92	105	300	1689	1728	1962	2596	1772	1820	2067	2067	2896
9. Uttar Pradesh	109	187	195	145	..	..	..	..	101	109	187	195
10. West Bengal	85	47	209	195	5482	5755	5664	5185	5566	5802	5173	5380
11. Manipur	..	..	160	153	153	150	200	153	153	150	150	360
12. Tripura	..	..	..	..	..	3	3	..	..	3	3	3
13. Himachal Pradesh	..	10	10	..	..	127	140	120	..	137	150	120
14. Meghalaya	..	..	..	..	..	..	50	60	..	..	50	60
<b>TOTAL</b>	61962	15080	18182	22922	76322	76219	79521	82023	93283	91299	97703	104845

Note : Data are as at the end of the year.

**APPENDIX III**

(*Vide Paragraph 5.3.3*)

*Statewise Production of Mulberry Raw Silk*

(In '000 Kgs.)

Item	Mysore	West Bengal	Jammu & Kashmir	Madhya Pradesh	Assam	Other	Total
1	2	3	4	5	6	7	8
<i>Filature :</i>							
1968	•	•	133	1	47	•	3
1969	•	•	99	3	49	•	2
1970	•	•	140	2	44	•	3
1971	•	•	124	3	48	•	4
1972	•	•	79	•	51	•	6
<i>Cottage Basin :</i>							
1968	•	•	440	19	•	1	•
1969	•	•	443	20	•	1	3
1970	•	•	474	46	•	Neg.	2
1971	•	•	534	20	•	1	2
1972	•	•	575	3	•	•	3
							581

APPENDIX III—Contd  
 (Vide Paragraph 53.3)  
*Statewise Production of Mulberry Raw Silk*

(In '000 Kgs.)

Item	Mysore	West Bengal	Jammu & Kashmir	Madhy Pradesh	Assam	Others	Total
1	2	3	4	5	6	7	8
<i>Charka :</i>							
1968	833	248	..	..	..	20	1101
1969	815	305	..	..	16	2	1138
1970	1263	269	..	..	12	2	1646
1971	1152	240	..	..	12	3	1407
1972	1705	108	..	..	4	1	818
<i>TOTAL :</i>							
1968	1406	268	48	1	16	6	1745
1969	1357	326	49	1	16	8	1758
1970	1877	317	44	Neg.	12	8	2258
1971	1810	263	48	1	12	9	2143
1972	1359	111	51	Neg.	4	10	1535

NOTE : Data for 1972 are for January to September 1972 only.

Source : Central Silk Board.

## APPENDIX IV

(Vide Paragraph 5.3.3)

*Installed and Active Capacities of Filature, Cottage basin and Charkha basins*

Sl. No.	Name of the State	Year	Filature Basins		Cottage Basins		Charkha Basins	
			Installed	Active	Installed	Active	Installed	Active
1	Mysore	1969	1200	1000	3350	3300	4325	3400
		1970	1250	1000	3350	3300	4391	4000
		1971	1250	998	3350	3300	4391	4200
2	West Bengal	1969	114	50	853	Partly active	3305	Partly active
		1970	114	50	853	do.	3305	do.
		1971	114	60	853	853	3305	3305
3	Jammu & Kashmir	1969	689	498	..	..	..	..
		1970	654	418	..	..	..	..
		1971	614	614	..	..	..	..
4	Uttar Pradesh	1969	30	30	..	..	..	..
		1970	30	30	..	..	..	..
		1971	30	30	..	..	..	..
5	Madhya Pradesh	1969	10	10	..	..	..	..
		1970	10	10	..	..	..	..
		1971	10	10	..	..	..	..

APPENDIX V

(Vide Paragraph 5.4.1)

*Statewise Production of non-mulberry Raw Silk*

(In '000 kgs.)

Item	Assam	Bihar	Madhya Pradesh	Orissa	West Bengal	Others	Total
1	2	3	4	5	6	7	8
<i>Tassar :</i>							
1968	•	•	•	•	127	135	21
1969	•	•	•	•	87	140	18
1970	•	•	•	•	189	145	10
1971	•	•	•	•	188	125	11
1972	•	•	•	•	44	105	11
				•	•	5	5
							165
<i>Eri :</i>							
1968	•	•	•	203	1	•	8
1969	•	•	•	210	•	•	5
1970	•	•	•	158	•	•	5
1971	•	•	•	165	•	•	4
1972	•	•	•	75	•	•	75

*Muga :*

1968	70	..	..	..	..	..	..	70
1969	..	72	..	..	..	..	..	72
1970	..	69	..	..	..	..	..	69
1971	..	72	..	..	..	..	..	72
1972	..	37	..	..	..	..	..	37
<b>TOTAL :</b>								
1968	273	128	135	21	15	..	..	572
1969	282	87	140	18	10	3	3	540
1970	227	189	145	10	12	3	3	586
1971	237	188	125	11	13	3	3	577
1972	112	44	105	11	5	..	..	277

NOTE : Data for 1972 are for January-September 1972 only.

Source : Central Silk Board.

APPENDIX VI

(Vide Paragraph 11.10.1)

*Countrywise Exports of Mulberry Silk Fabrics*

(Qty. in '000 metres) (Value in '000 Rs.)

Country	1969			1970			1971			1972		
	Qty.	Value	Qty.	Value	Qty.	Value	Qty.	Value	Qty.	Value	Qty.	Value
<i>Traditional Market :</i>												
ASIA												
Malaysia and Singapore	309	4699	343	5987	350	5423	392	6009	78	6009	33	566
Hong Kong	67	1195	85	1432	38	601	33	423				
Arabian Gulf	1	27	15	397	23	630	17	399				
Lebanon	10	139	11	193	12	226	18	399				
Fiji Islands	22	359	34	584	29	466	23	349				
Saudi Arabia	2	34	5	80	8	220	5	130				
Yemen	..	..	..	..	Neg.	7	2	97				
Jordan	..	..	..	..	5	41	10	85				
Kuwait	M	..	..	..	5	112	2	56				
Others	65	1148	71	1196	73	1136	16	225				
<b>TOTAL</b>	<b>476</b>	<b>7601</b>	<b>564</b>	<b>9869</b>	<b>543</b>	<b>8863</b>	<b>518</b>	<b>8339</b>				

AFRICA

Kenya	..	..	1372	89	880	132	2490	154	3090
Mauritius	..	..	..	..	..	36	490	65	995
Canary Islands	..	..	..	..	..	27	462	36	493
Somalia	..	..	..	..	..	8	138	22	380
Zambia	..	3	86	4	73	5	121	15	345
Lesotho	..	..	..	..	..	..	..	7	136
Tanzania	..	..	..	..	..	8	156	6	123
Nigeria	..	Neg.	2	2	29	7	122	6	102
Others	..	43	758	20	460	37	814	9	196
<b>TOTAL</b>	..	114	2218	115	2442	260	4793	320	5860
<i>Traditional Market</i>	..	..	..	..	..	..	..	..	..
<b>TOTAL</b>	..	<b>590</b>	<b>9819</b>	<b>679</b>	<b>12311</b>	<b>803</b>	<b>13656</b>	<b>838</b>	<b>14199</b>
<i>Non-Traditional Market :</i>									
<b>AUSTRALIA AND OTHERS</b>									
Japan	..	440	8021	400	8213	214	3787	188	3339
Australia	..	70	1373	92	1632	97	1510	66	1139
New Zealand	..	2	32	14	197	24	311	10	181
<b>TOTAL</b>	..	<b>512</b>	<b>9426</b>	<b>506</b>	<b>10042</b>	<b>335</b>	<b>5608</b>	<b>264</b>	<b>4659</b>

### *Traditional Market : TOTAL*

AUSTRALIA AND OTHERS

Japan	.	.	440	8021	400	8213	214	3787	188	3339
Australia	.	.	70	1373	92	1632	97	1510	66	1139
New Zealand	.	.	2	32	14	197	24	311	10	181

APPENDIX VI—*contd.*

Country	1969		1970		1971		1972	
	Qty.	Value	Qty.	Value	Qty.	Value	Qty.	Value
<b>WEST EUROPEAN COUNTRIES :</b>								
West Germany	1967	25948	2455	33750	1209	14712	1007	14478
France	2147	26175	587	8668	260	3786	513	6789
U. K.	334	4849	432	6689	243	3546	198	3449
Switzerland	345	4476	318	4477	106	1730	114	1625
Denmark	236	3621	307	4827	36	586	39	712
Italy	229	2884	212	3018	149	2128	135	1746
Sweden	652	10293	359	5828	86	1656	97	1868
Austria	67	922	68	950	41	700	36	578
Belgium	156	2251	184	2572	57	793	23	508
Spain	31	411	47	720	7	138	29	403
Finland	69	1215	78	1220	6	121	10	196
Others	222	3200	692	9935	36	540	23	440
<b>TOTAL</b>	6455	86245	5739	82654	2236	30437	2224	32791

Country	1969		1970		1971		1972	
	Qty.	Value	Qty.	Value	Qty.	Value	Qty.	Value
<b>EAST EUROPEAN COUNTRIES :</b>								
Poland	18	224	8	101	13	156	147	3024
Czechoslovakia	47	613	54	722	8	128	73	1034
East Germany	4	68	11	187	39	886	50	628
Yugoslavia	..	..	..	..	6	59	19	378
Bulgaria	..	..	..	..	1	15	17	195
Others	77	426	Neg.	25			Neg.	3
<b>TOTAL</b>	146	1326	73	1035	67	1244	306	5262
<b>AMERICA AND OTHERS :</b>								
U. S. A.	770	14438	558	11247	318	6162	222	4645
Canada	64	1138	181	2478	67	996	30	565
West Indies	..	..	..	..	3	89	7	149
Others	48	958	91	1534	24	457	10	176
<b>TOTAL</b>	882	16534	830	15259	412	7704	269	5536
<i>Non-Traditional Market :</i>								
<b>TOTAL</b>	7995	113531	7148	108990	3050	44992	3063	48247
<b>GRAND TOTAL</b>	8585	123350	7827	121302	3853	58649	3901	62446

## APPENDIX VII

(Vide Paragraph 11.11.1)

### Countrywise Exports of Tasar Silk Fabrics

(Qty. in Sq. metres) (Value in '000 Rs.)

Country	1969		1970		1971		1972	
	Qty.	Value	Qty.	Value	Qty.	Value	Qty.	Value
<i>Export of Tasar Silk Fabrics :</i>								
1. West Germany	340	4846	323	5184	309	5291	347	6949
2. France	33	566	61	1056	92	1583	55	1112
3. Italy	35	651	55	1026	65	1257	32	650
4. Japan	187	3301	95	1729	34	587	27	532
5. Switzerland	61	881	23	390	23	405	26	525
6. U.S.A.	92	1459	24	573	23	472	59	1210
7. Sweden	326	4616	55	1007	15	300	21	381
8. Austria	7	124	9	174	14	268	22	441
9. Malaysia	5	76	6	102	8	152	2	69
10. Australia	38	667	25	475	9	175	13	249

11. Yugoslavia	..	1	..	9	8	160	..	..
12. Denmark	53	876	23	448	10	164	8	139
13. Canada	10	204	6	110	6	108	11	209
14. Others	88	1390	72	1289	27	528	56	1120
<b>Total</b>	<b>1275</b>	<b>19658</b>	<b>777</b>	<b>13572</b>	<b>643</b>	<b>11450</b>	<b>679</b>	<b>13586</b>



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